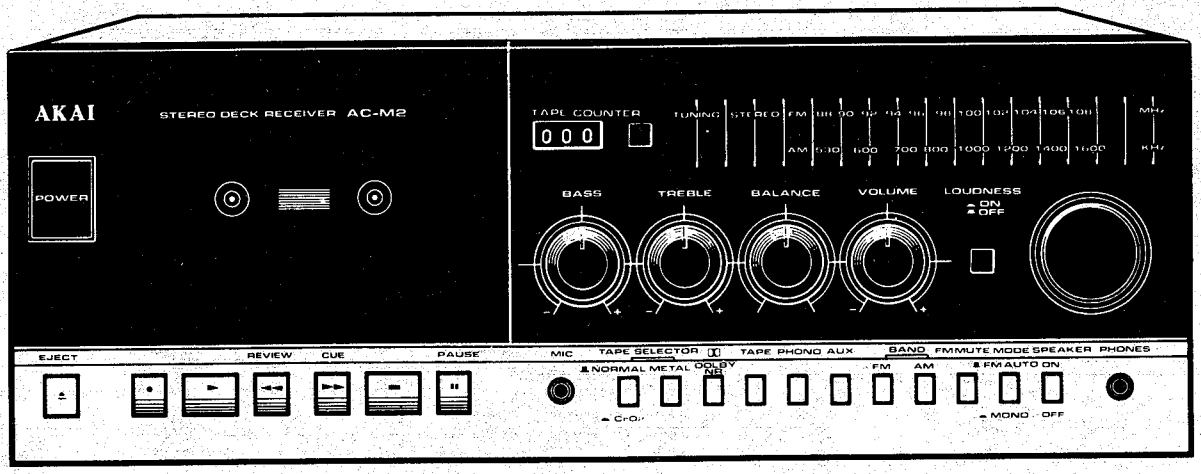
AKAI SERVICE MANUAL



STEREO DECK RECEIVER

MODEL AC-M2

STEREO DECK RECEIVER

MODEL AC-M2

SECTION 1 SERVICE MANUAL 3
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SECTION 3 SCHEMATIC DIAGRAM 30

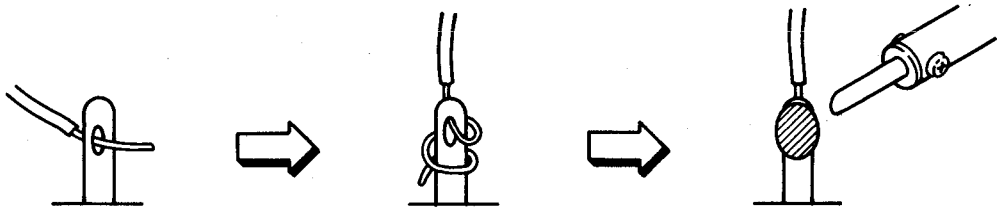
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
10. Voltage Conversion and Best Selector
    1) Voltage Conversion
       Models for Japan, Canada, USA, Europe, UK and Australia are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V–120V or 220–240V as required.
       If your machine's voltage can be converted:
       1-1) Disconnect the power cord.
       1-2) Remove the cover plate.
       1-3) Move the Voltage Selector located on the rear panel with a screwdriver. So that the marker is below the voltage for your area. (Refer to Fig. 1)
    2) Cycle Conversion
       With DC motor cycle conversion is not necessary.

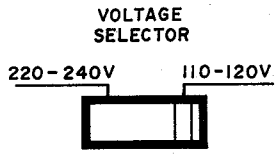


Fig. 1

SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

FM TUNER SECTION

TUNING FREQUENCY RANGE	87.6 to 108 MHz
USABLE SENSITIVITY (IHF)	17.2 dBf
QUIETING SENSITIVITY (S/N=50dB) Mono/ST	23.2 dBf/43.2 dBf
SELECTIVITY (400 kHz)	60 dB
IMAGE REJECTION	55 dB
IF REJECTION	90 dB
SPURIOUS REJECTION	60 dB
AM SUPPRESSION	55 dB
S/N (Mono/ST)	70 dB/60 dB
T.H.D. (Mono/ST)	0.3%/0.4%
STEREO SEPARATION (1 kHz)	42 dB

AM TUNER SECTION

TUNING FREQUENCY RANGE	525 to 1,605 kHz
USABLE SENSITIVITY (IHF)	500 μV/m
SELECTIVITY	38 dB
IMAGE REJECTION	40 dB
IF REJECTION	50 dB
S/N	40 dB
T.H.D.	1.5%

DECK SECTION

TRACK SYSTEM		4 Track 2-Channel Stereo System
TAPE SPEED		4.76 cm/s (1-7/8 ips)
MOTOR		Electronically Controlled DC Motor x 1
HEADS		High Density Metallic Rec/Play Head x 1 Erase Head x 1
WOW & FLUTTER		0.07% (WRMS)
TAPE WINDING TIME		90 sec Using a C-60 Tape
FREQUENCY RESPONSE	NORMAL CrO_2 METAL	40 Hz to 13,000 Hz (±3 dB) 40 Hz to 14,000 Hz (±3 dB) 40 Hz to 15,000 Hz (±3 dB)
S/N		54 dB Dolby NR ON: Improves up to 10 dB above 5 kHz
T.H.D.		1% (Metal tape)

POWER AMPLIFIER SECTION

RATED POWER OUTPUT (2 channels Driven)		2 x 18W/0.5% (1 kHz, 8 ohms)
S/N	PHONO AUX	68 dB 90 dB
RESIDUAL NOISE (8 ohms)		0.5 mV
CHANNEL SEPARATION (IHF, 1 kHz)		45 dB
APPLICABLE SPEAKER IMPEDANCE		4 to 16 ohms

PRE-AMPLIFIER SECTION

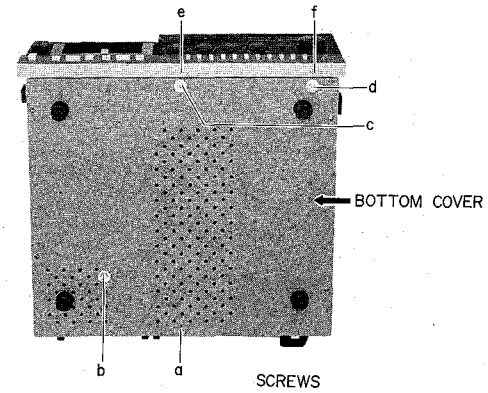
IMPUT SENSITIVITY/IMPEDANCE	PHONO AUX MIC	3 mV/47 kohms 300 mV/47 kohms 1.6 mV/4 kohms
FREQUENCY RESPONSE	PHONO (RIAA Deviation) AUX	30 Hz to 15 kHz ±0.5 dB 15 Hz to 50 kHz +0, −3 dB
TONE BOOST	BASS TREBLE	±8 dB (100 Hz) ±8 dB (10 kHz)
POWER REQUIREMENT		120V, 60 Hz for USA & Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK & Australia 110–120V/220–240V, 50 Hz/60 Hz switchable for other countries.
POWER CONSUMPTION		150W
DIMENSIONS		350(W) x 127(H) x 365(D) mm (13.8 x 5 x 14.4 inches)
WEIGHT		6.3 kg (13.9 lbs)

*** For improvement purposes, specifications and design are subject to change without notice.**
*** Dolby and the Double D symbol are trade marks of Dolby Laboratories. (Manufactured under license from Dolby Laboratories.)**

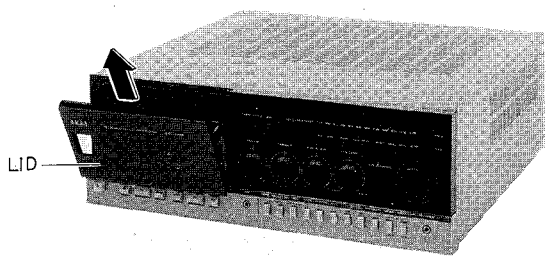
II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

4



1



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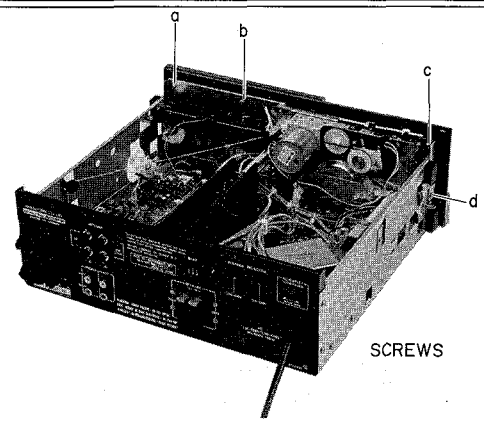

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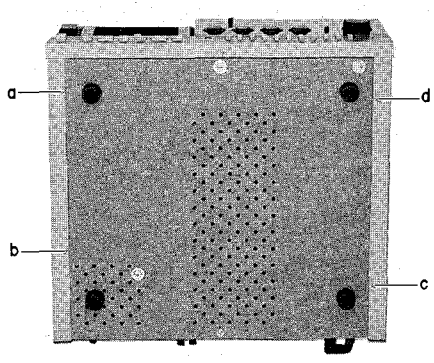

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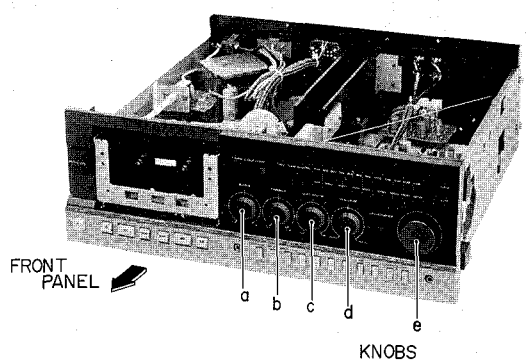

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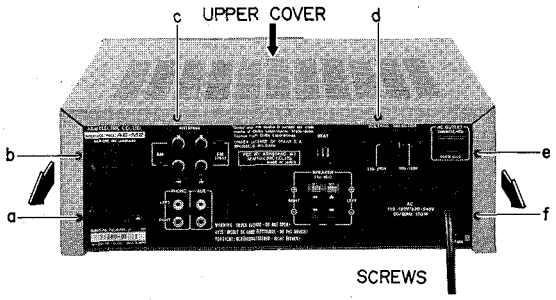

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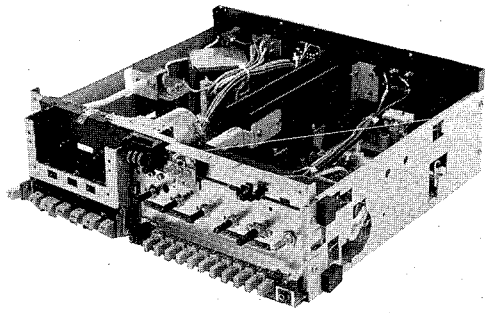


III. CONTROLS

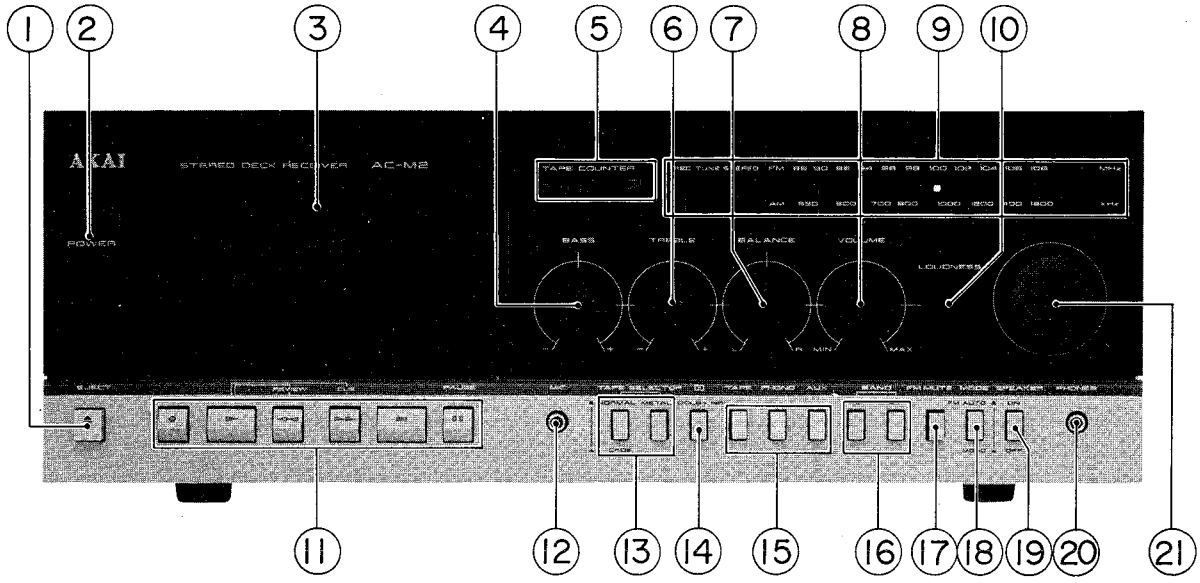


Fig. 3-1 Front Side

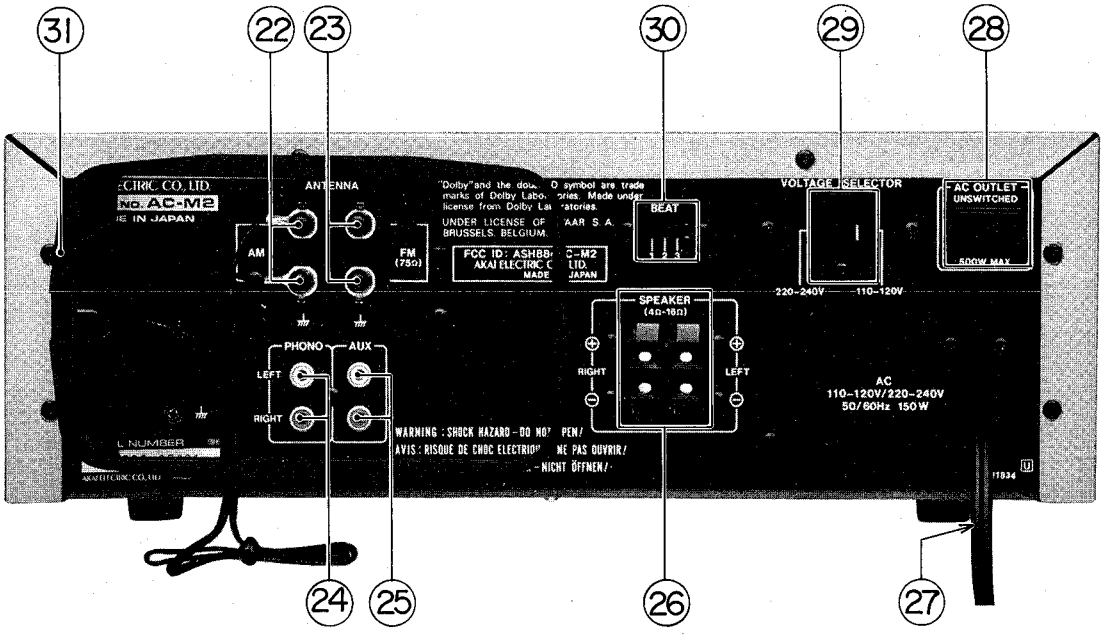


Fig. 3-2 Rear Side

1. EJECT BUTTON
2. POWER SWITCH
3. CASSETTE HOLDER
4. TONE (BASS) CONTROL
5. TAPE COUNTER and RESET BUTTON
6. TONE (TREBLE) CONTROL
7. BALANCE CONTROL
8. VOLUME CONTROL
9. TUNING DIAL SCALE and INDICATOR
10. LOUDNESS SWITCH
11. OPERATION BUTTONS
12. MIC JACK
13. TAPE SELECTORS (Normal, CrO_2, METAL)
14. DOLBY-NR SWITCH
15. INPUT SOURCE SELECTORS (TAPE, PHONO, AUX)
16. BAND SELECTORS
17. FM MUTE SWITCH
18. FM MODE SELECTOR
19. SPEAKER SWITCH
20. PHONES JACK
21. TUNING CONTROL
22. AM LOOP ANTENNA TERMINAL
23. FM ANTENNA TERMINAL
24. PHONO JACKS
25. AUX JACKS
26. SPEAKER TERMINALS
27. AC CORD
28. AC OUTLET
29. VOLTAGE SELECTOR ([U] Model only)
30. BEAT SELECTOR
31. LOOP ANTENNA

IV. PRINCIPAL PARTS LOCATION

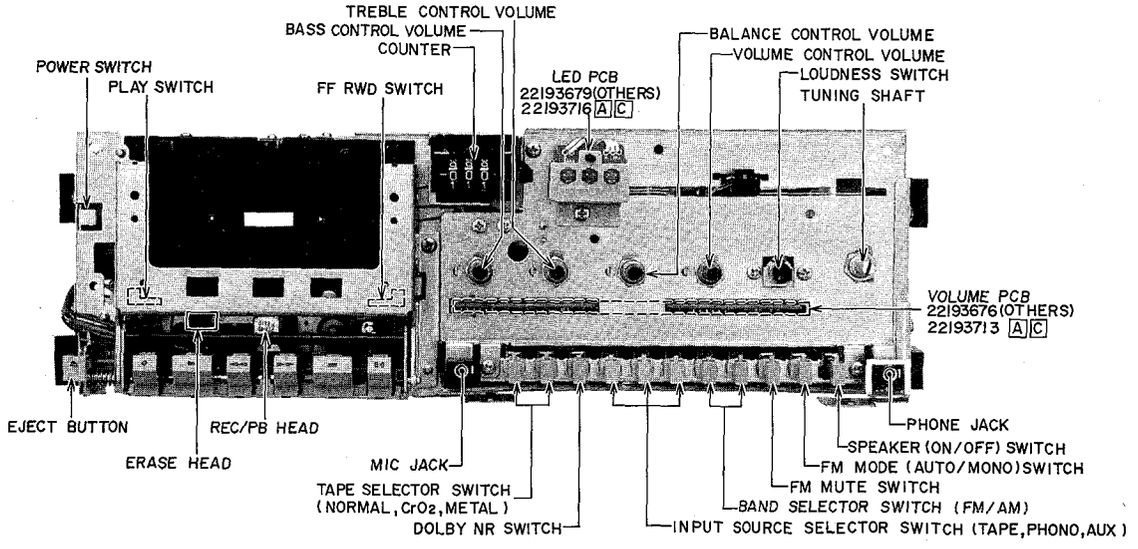


Fig. 4-1 Front View

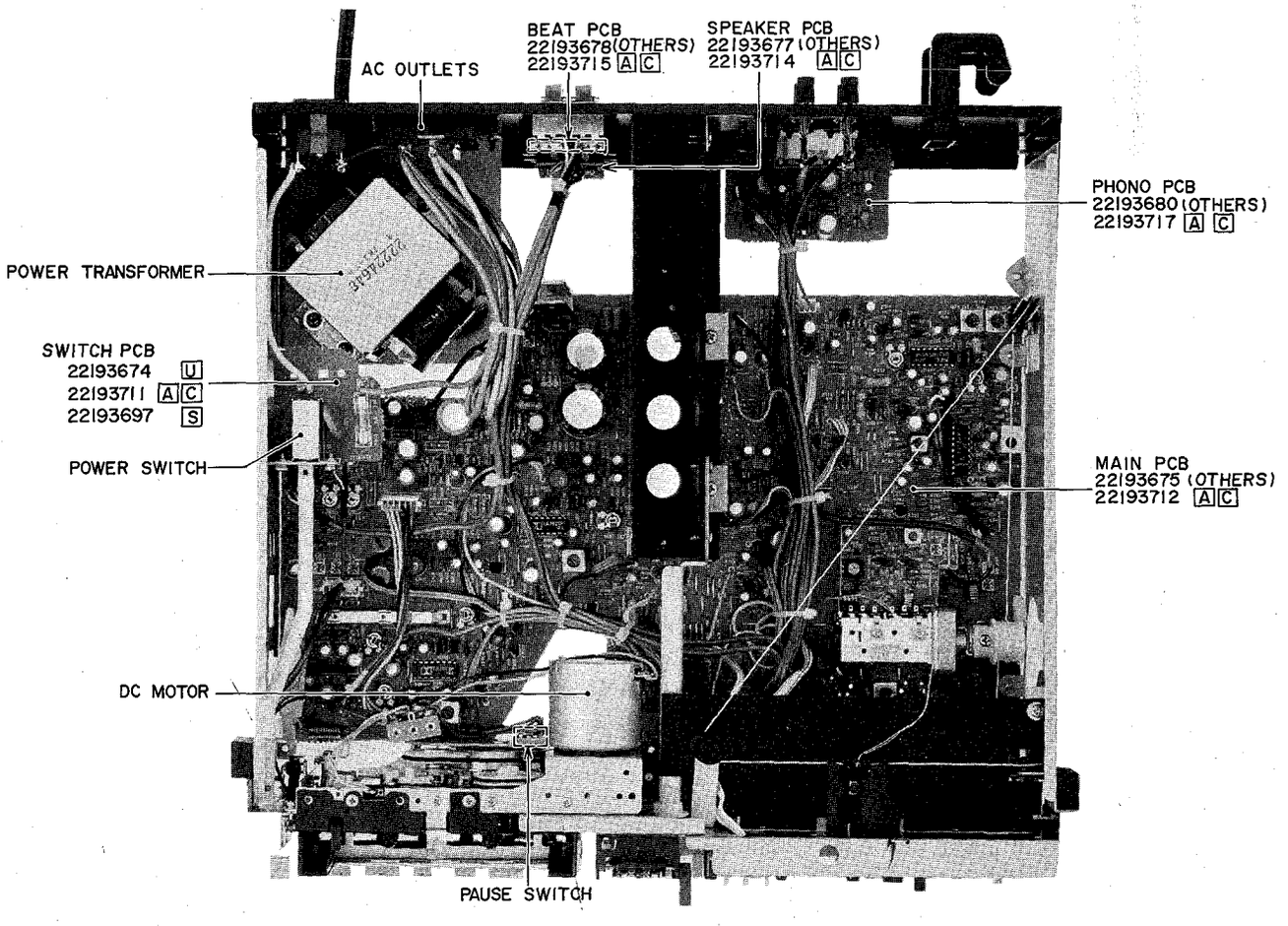


Fig. 4-2 Top View

V. MECHANICAL ADJUSTMENT

5-1. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 5-1)

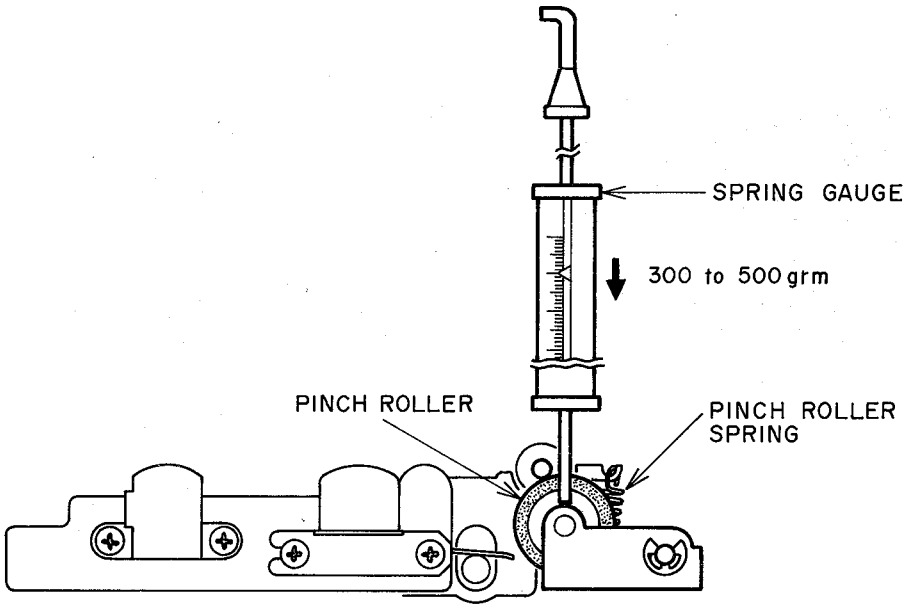


Fig. 5-1

Put in PLAY mode, push pinch roller arm down with the spring gauge, push the pinch roller 1~2 mm from the capstan and release slowly. Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate.
Specified, contact pressure measurement of 300 to 500 grm. If there is no measurement obtained, replace the pinch roller spring.

5-2. WINDING TORQUE MEASUREMENT IN EACH MODE (Refer to Fig. 5-2)

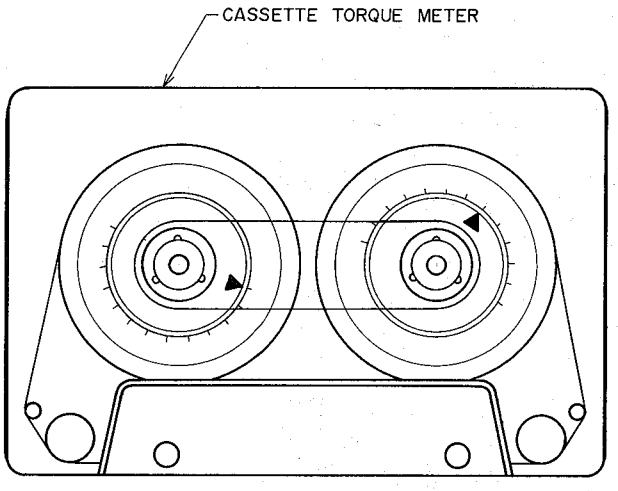


Fig. 5-2 Cassette Torque Meter

Insert cassette torque meter (AJ-751179) and measure in each mode.
For fast forward and rewind measure at the end of the tape has stopped running.

Forward play:	35 to 70 g-cm
Fast Forward, Rewind:	70 to 160 g-cm

5-3. TAPE SPEED ADJUSTMENT (Refer to Fig. 5-3)

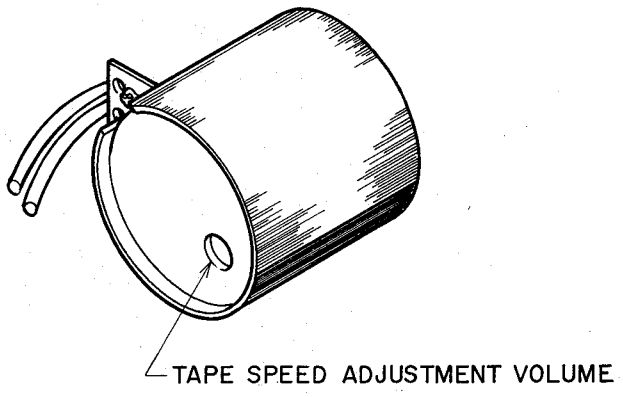


Fig. 5-3

Connect a frequency counter to line output terminal. Playback a 1,000 Hz pre-recorded test tape (AT-750774) or a 3150 Hz, Pre-recorded test tape (AT-751263), and adjust the tape speed adjustment volume to obtain a tape speed of 1000 ± 1.0%, or 3150 ± 1.0%.

5-4. DIAL CORD STRINGING

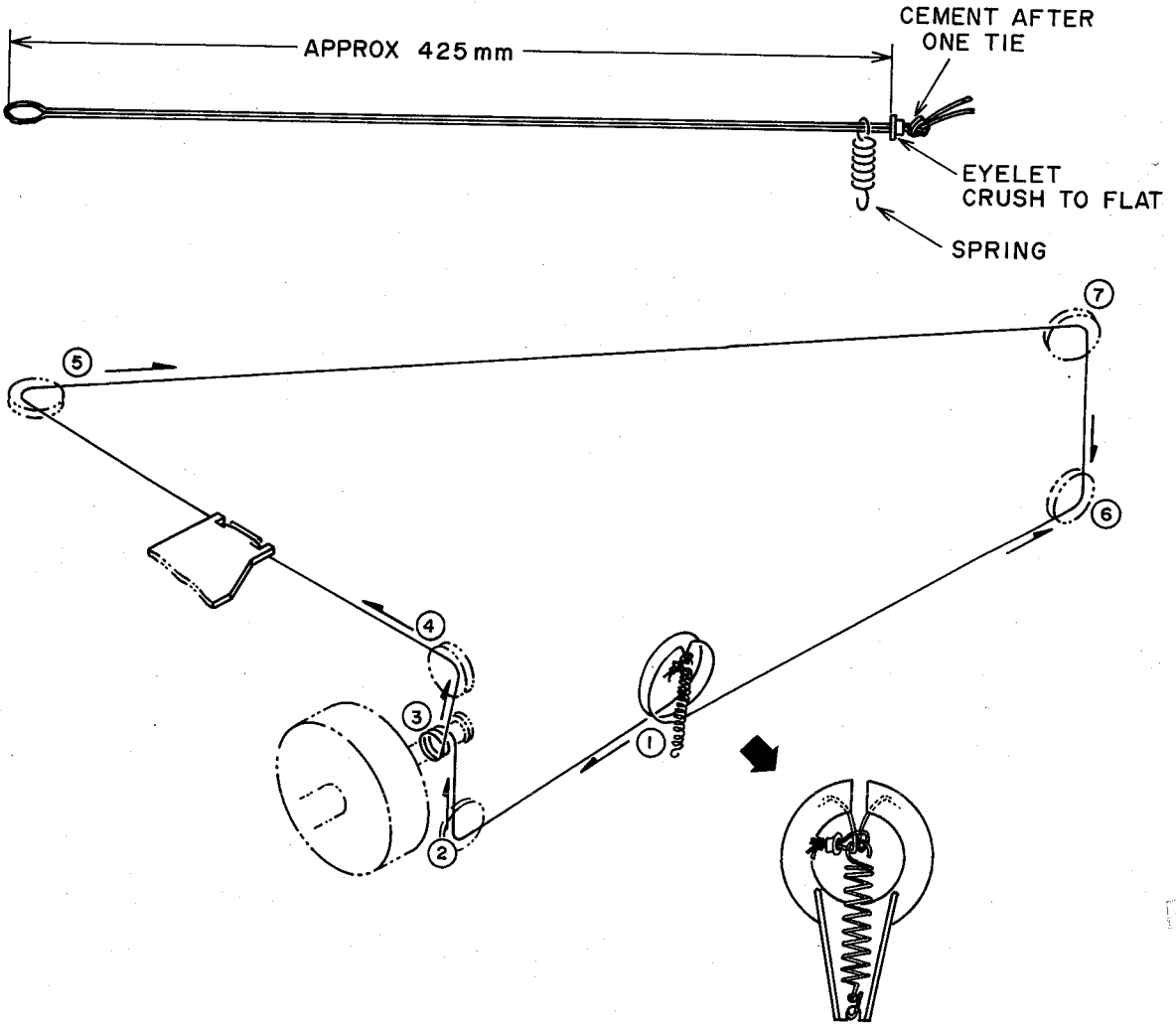


Fig. 5-4

1) Set the tuning capacitor to the maximum capacitance (fully counterclockwise position).
2) Wind the dial cord in the numerical sequence as shown in Fig. 5-4.

VI. ELECTRICAL ADJUSTMENT

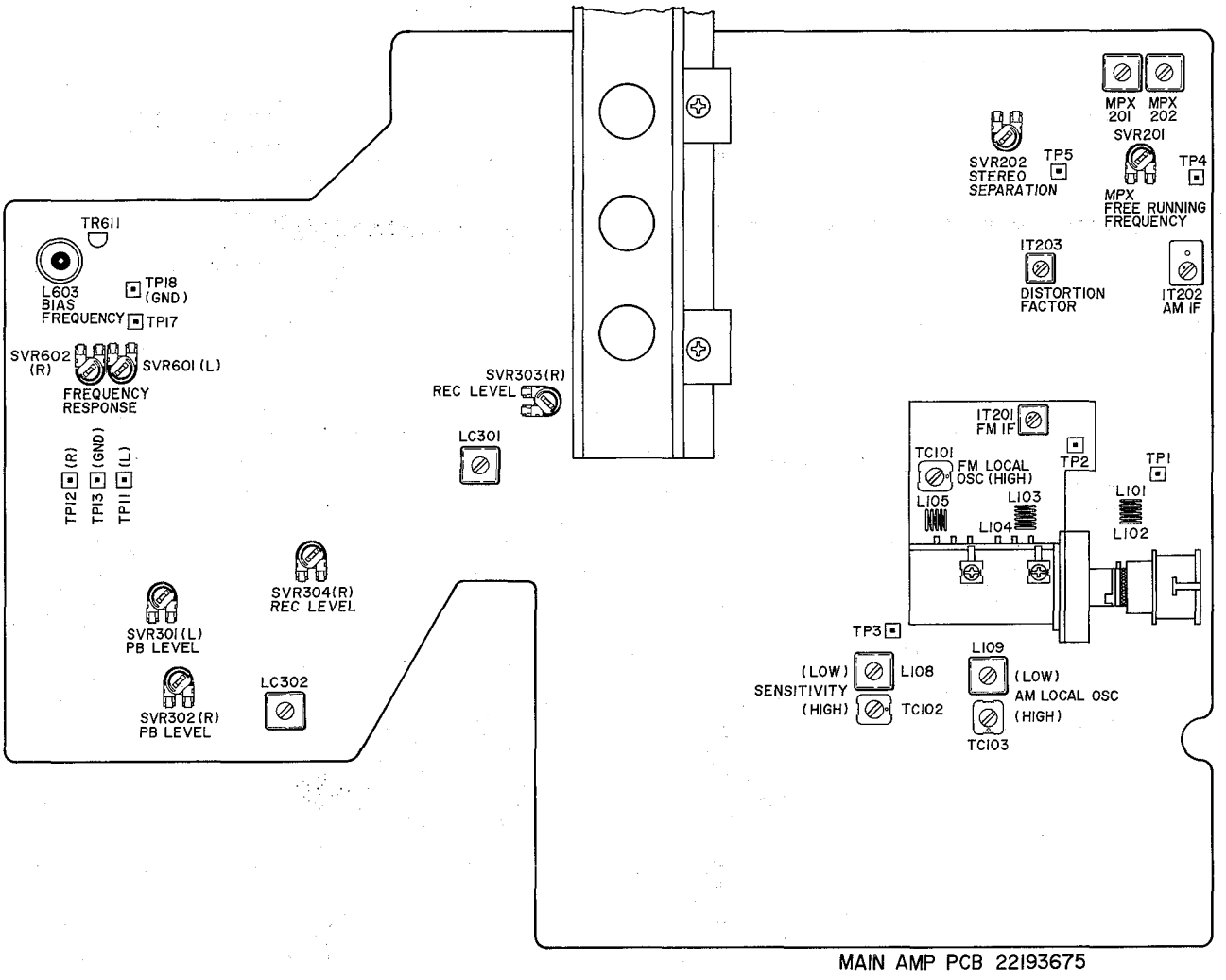


Fig. 6-1 Adjustment Points and Test Points of Main P.C Board

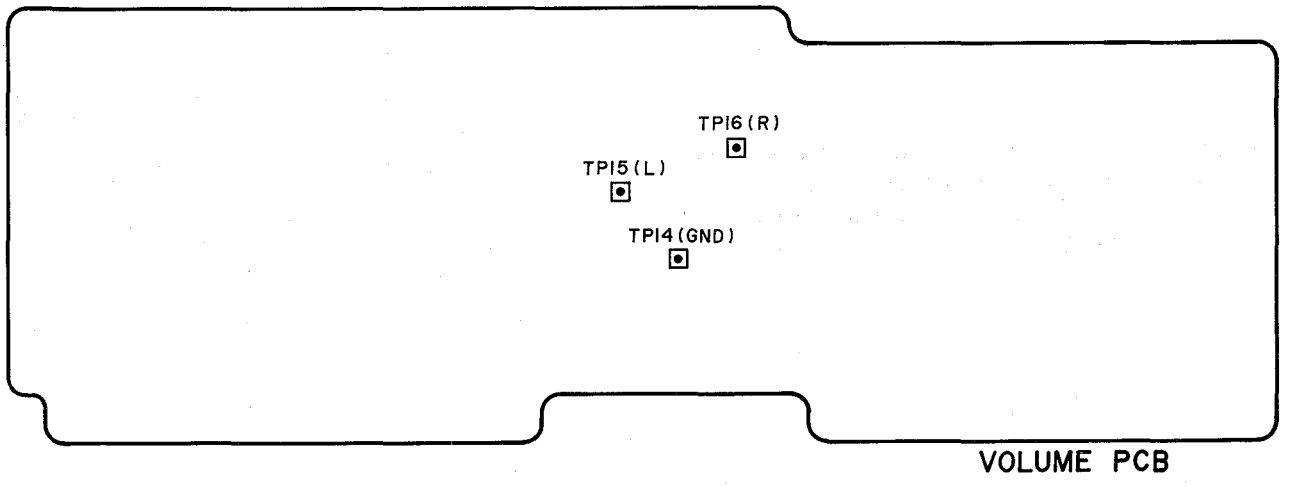


Fig. 6-2 Test Points of Volume P.C Board

6-1. AM (MW) ADJUSTMENT

1) Connect test equipment as shown in Fig. 6-3.
2) Function Switch to AM.
3) Generator modulation is 400 Hz, 30%.
4) Proceed as outline in the Chart.

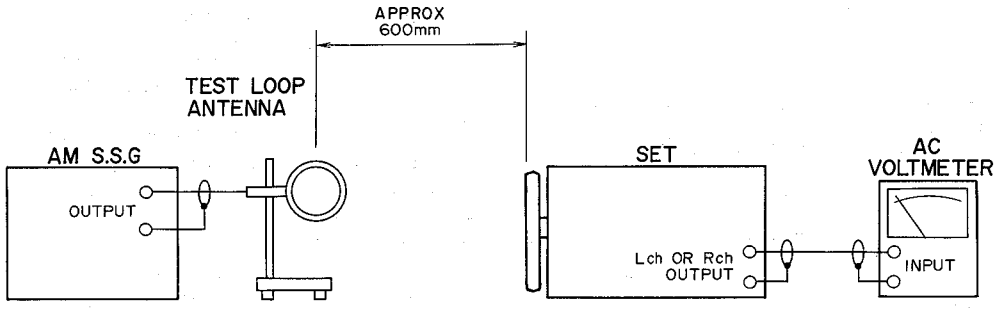


Fig. 6-3

Step	Adjustment Item	Input Signal	Adjustment Point	Result	Remarks
1	AM IF	459 kHz 50 dB	IT202	Maximum output	• Turn the Tuning Dial fully counterclockwise.
2	AM Local OSC (Low)	510 kHz 50 dB	L109	Maximum output	• Turn the Tuning Dial fully counterclockwise.
3	AM Local OSC (High)	1650 kHz 50 dB	TC103	Maximum output	• Turn the Tuning Dial fully clockwise.
4	Repeat Step 2 and 3 as Required.				
5	Low Range Sensitivity	600 kHz 50 dB	L108	Maximum output	• Tune to signal.
6	High Range Sensitivity	1400 kHz 50 dB	TC102	Maximum output	• Tune to signal.
7	Repeat Step 5 and 6 as required.				

6-2. FM SECTION ADJUSTMENT

1) Connect test equipment as shown in Fig. 6-4.
2) Push the FM Button.
3) Generator modulation is 1 kHz, 75 kHz diviation.
4) Proceed as outline in the Chart.

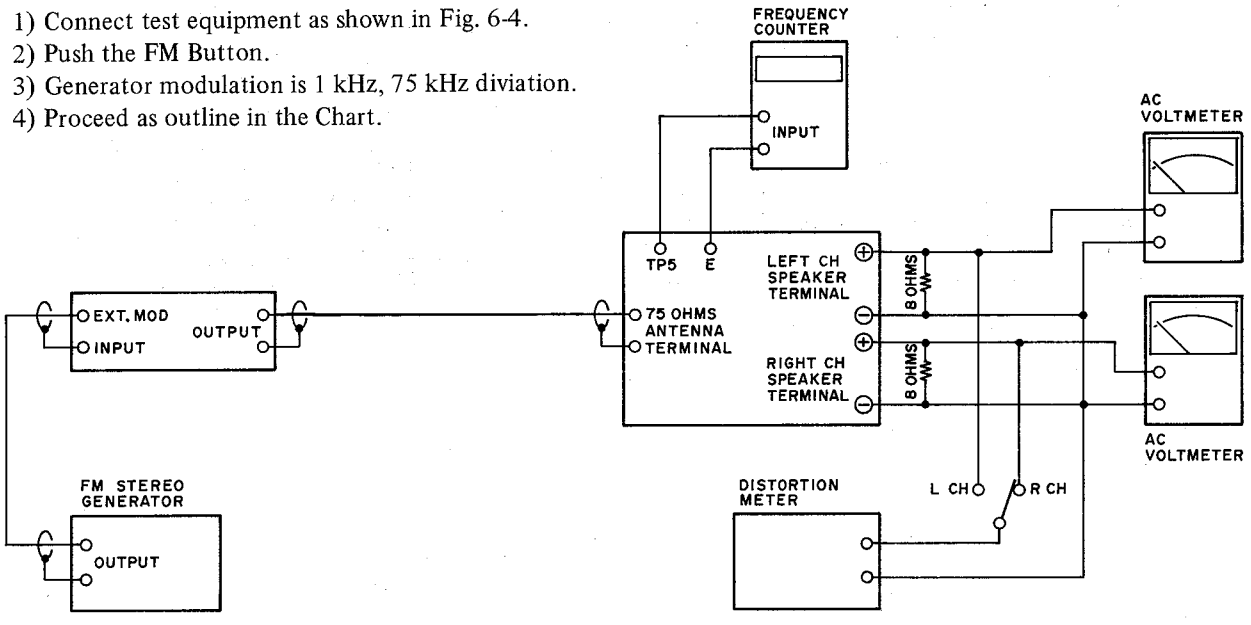


Fig. 6-4

Step	Adjustment Item	Input Signal	Adjustment Point	Result	Remarks
1	FM IF Coil		IT201	Maximum Noise Level	• MODE switch to MONO • FM MUTE switch to OFF • Tunes only Noise without interference from broadcasting.
2	Distortion Factor	98 MHz 60 dB	IT203	Minimum distortion	• MODE switch to MONO • FM MUTE switch to OFF
3	Repeat Step 1 and 2 as required.				
4	FM Local OSC (Low)	87.4 MHz 20 dB	L105	Maximum output	• MODE switch to MONO • FM MUTE switch to OFF • Turn the Tuning Dial fully counter-clockwise.
5	FM Local OSC (High)	109 MHz 20 dB	TC101	Maximum output	• MODE switch to MONO • FM MUTE switch to OFF • Turn the Tuning Dial fully clockwise.
6	Low Range Sensitivity (See Note 1)	90 MHz 10 dB	L102 L104	• Maximum output level • THD: within 3% distortion	• MODE switch to MONO • FM MUTE switch to OFF • Tune to signal.
7	High Range Sensitivity	106 MHz 10 dB	TCa TCr	• Maximum output • THD: within 3% distortion	• MODE switch to MONO • FM MUTE switch to OFF • Tune to signal.
8	Repeat Step 5 and 6 as required.				
9	MPX Free Running Frequency		SVR201	19 kHz ± 50 Hz	• MODE switch to MONO • FM MUTE switch to ON • Connect a Frequency Counter between TP-5 and GND.
10	Stereo Separation (Left → Right)	98 MHz 60 dB	SVR202	Minimum output	• MODE switch to STEREO • FM MUTE switch to ON • 10% Pilot (7.5 kHz diviation) • 90% Main & sub (67.5 kHz diviation) • Input only Left ch. • Minimum output of Right ch.
11	Stereo Separation (Right → Left)	98 MHz 60 dB	Confirmation	Minimum output	• Condition is same as Step 10. • Input only Right ch. • Minimum output of Left ch.

6-3. CASSETTE DECK SECTION ADJUSTMENT (Refer to Fig. 6-1 and Fig. 6-2)

Step	Adjustment Item	Test Tape or Supply Signal	Mode	Adjustment Point	Result	Remarks
1	Playback Level (See Note 2)	333 Hz or 315 Hz Test Tape	P.B	SVR301 (Left) SVR302 (Right)	180 mV 190 mV	• Connect a AC Voltmeter between TP-15 (Left), TP-16 (Right) and TP-14 (GND).
2	Bias Frequency		REC	L603	85 kHz	• Set Beat Switch to Position 2. • Connect a Frequency Counter between TP-17 and TP-18 (GND).
3	Recording Level	Normal Blank tape 1,000Hz 300mV	REC	SVR303 (Left) SVR304 (Right)	0.4 mV	• TR611 (2SC2236) Base to GND. • Tape Selector Switch to Normal position. • Connect a AC Voltmeter between TP-11 (Left), TP-12 (Right) and TP-13 (GND).
4	Frequency Response	Normal Blank tape 1,000 Hz, 10,000 Hz 30 mV Recording	REC/P.B	SVR601 (Left) SVR602 (Right)	1,000 Hz to 10,000 Hz flat	• Set Tape Selector Switch to Normal position. • Connect a AC Voltmeter between TP-15 (Left), TP-16 (Right) and TP-14 (GND).

NOTE: 1. Use the Maxell UD C-60 for Adjustment step 3 and 4.
2. As the test tape has been changed, set to 180 mV when using 333 Hz test tape. For details, refer to Service Guide (No. 0012) issued in Nov., 1982.

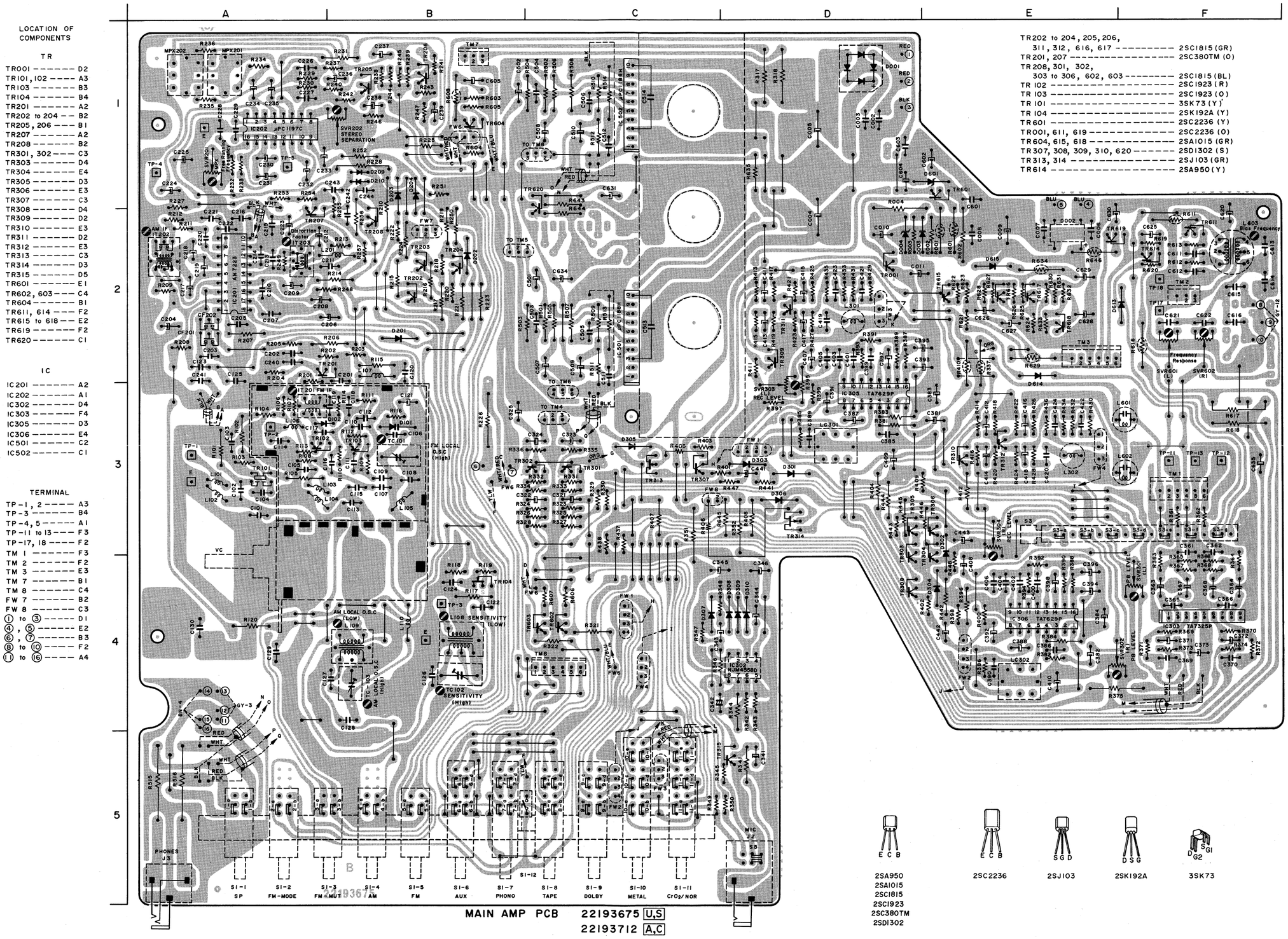
VII. CLASSIFICATION OF VARIOUS P.C BOARDS

7-1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

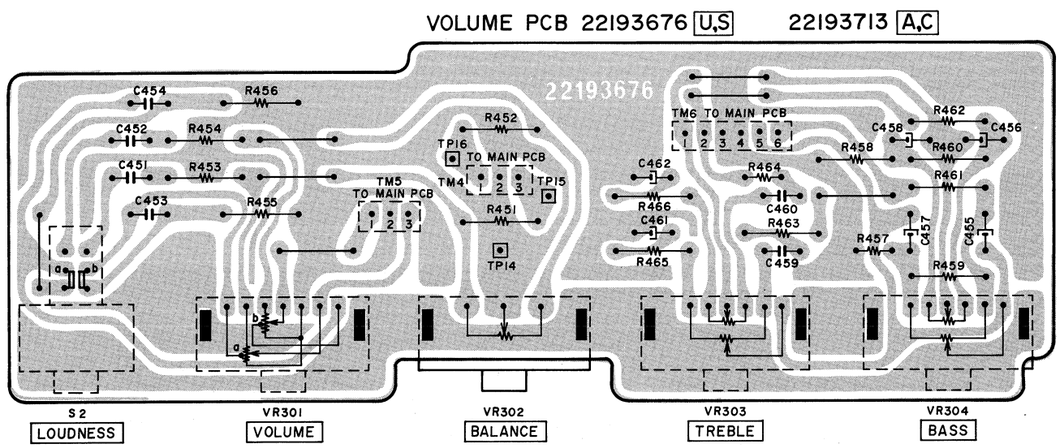
P.C Board Title	P.C Board Number	Remarks
MAIN P.C Board	22193675 22193712	[U], [S] [A], [C]
VOLUME P.C Board	22193676 22193713	[U], [S] [A], [C]
SPEAKER P.C Board	22193677 22193714	[U], [S] [A], [C]
BEAT P.C Board	22193678 22193715	[U], [S] [A], [C]
LED P.C Board	22193679 22193716	[U], [S] [A], [C]
PHONO P.C Board	22193680 22193717	[U], [S] [A], [C]
SWITCH P.C Board	22193674 22193711 22193697	[U] [A], [C] [S]

7-2. COMPOSITION OF VARIOUS P.C BOARDS

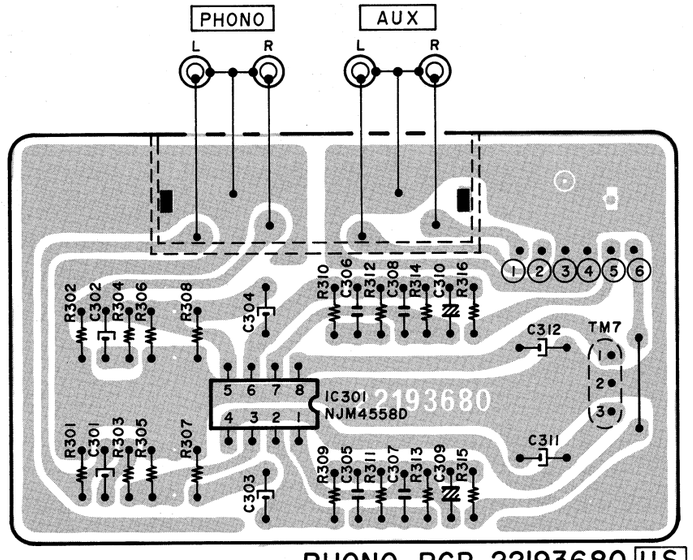
1) MAIN AMP P.C BOARD 22193675 (U, S), 22193712 (A, C)



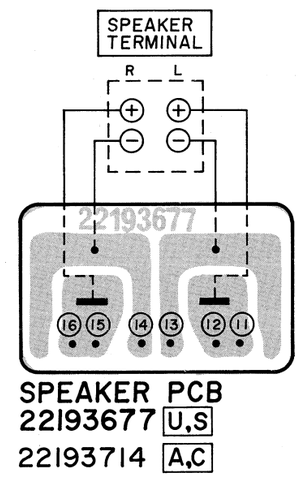
2) VOLUME P.C BOARD 22193676 (U, S), 22193713 (A, C)

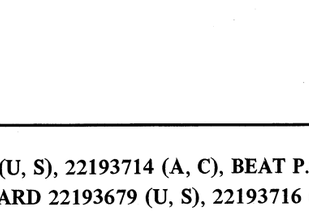


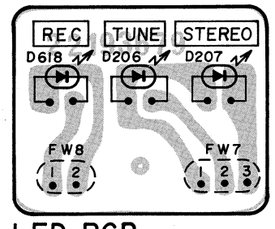
3) PHONO P.C BOARD 2219 3680 (U, S), 22193717 (A, C)



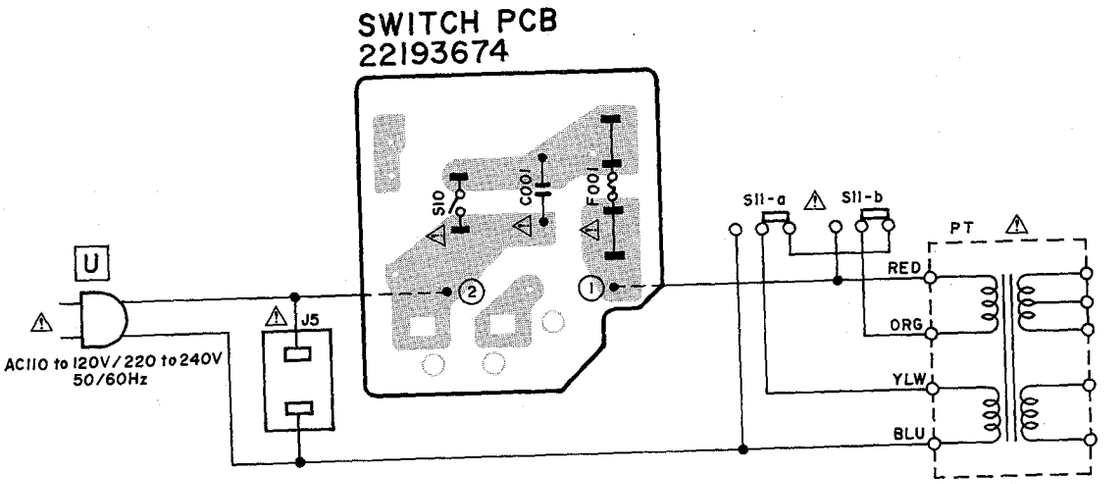
4) SPEAKER P.C BOARD 22193677 (U, S), 22193714 (A, C), BEAT P.C BOARD 22193678 (U, S), 22193715 (A, C) and LED P.C BOARD 22193679 (U, S), 22193716 (A, C)

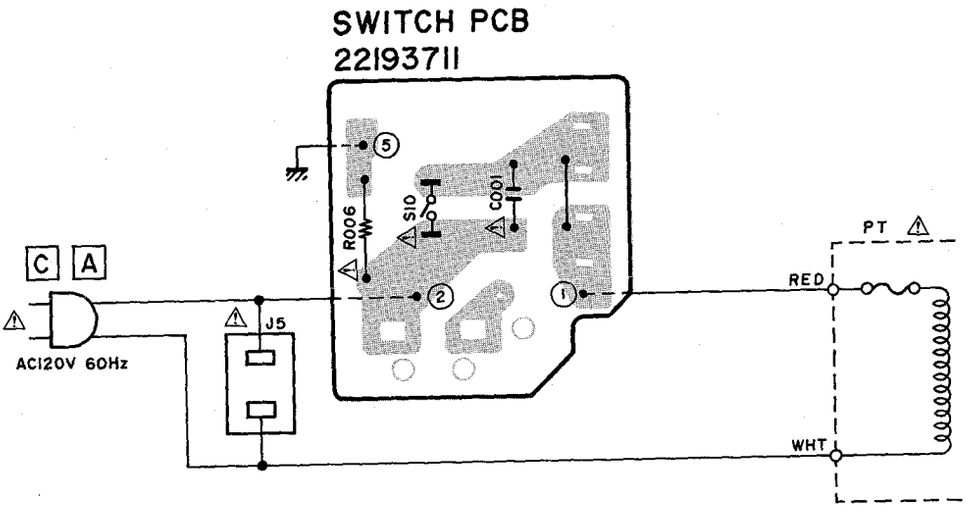


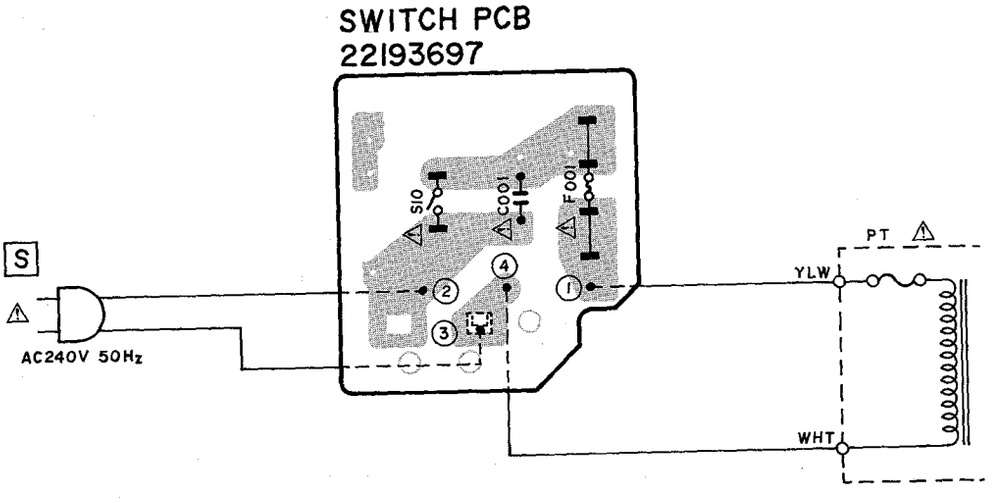




5) SWITCH P.C BOARD 22193674 (U), 22193711 (A, C), 22193697 (S)







WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

SECTION 2

PARTS LIST

TABLE OF CONTENTS

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5. FINAL ASSEMBLY BLOCK 28
INDEX 29

Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20x03STL CMT
2-4	ZS-536488	BID20x08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

b) P.C Board Block

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

This reference numbers corresponds with symbol numbers of Schematic Diagrams.

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT

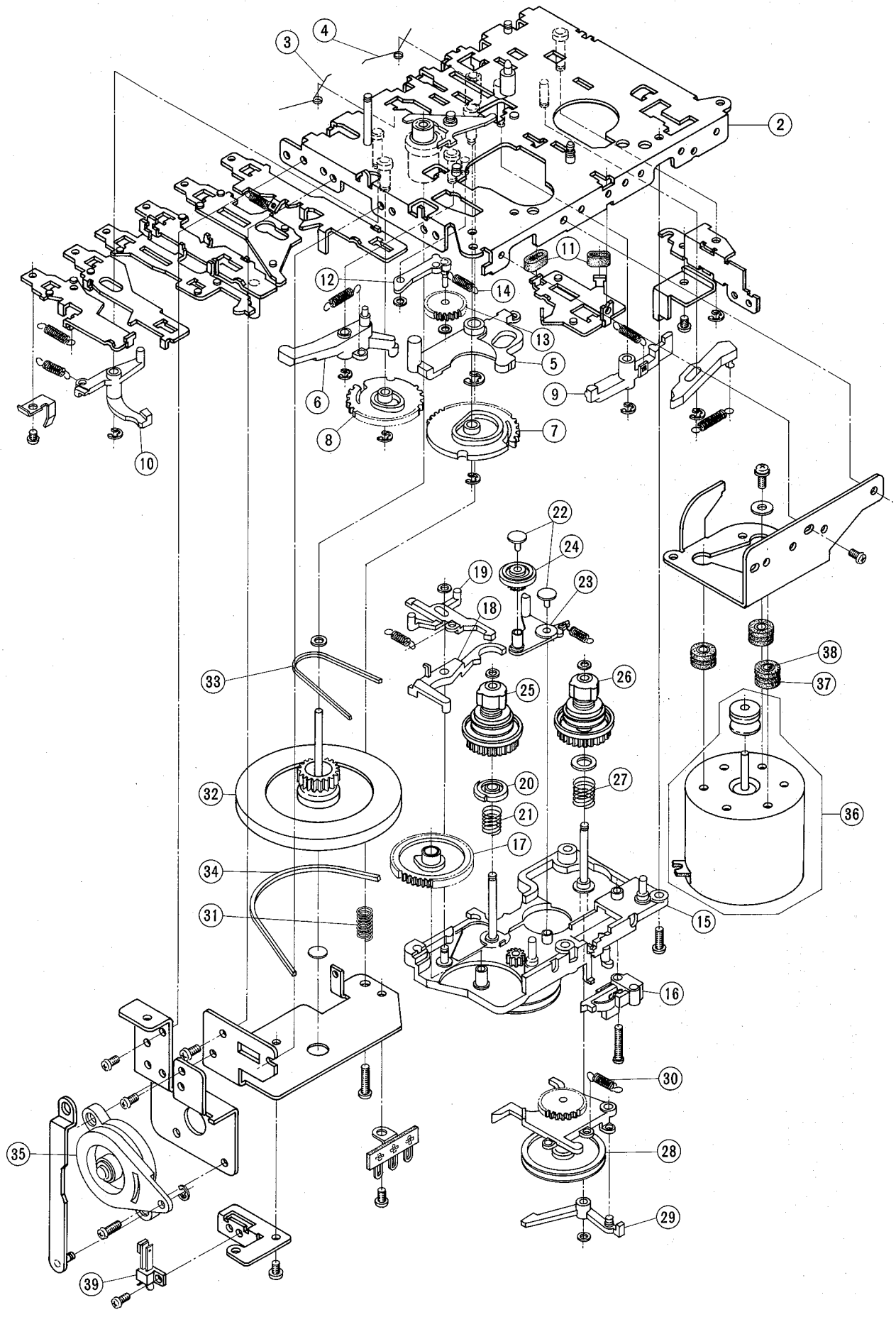
⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

NO.	PARTS NO.	DESCRIPTION
1	BL-749274	PINCH ROLLER ARM ASSY
2	BM-749287	MOTOR ASSY
3	BR-749260	REEL TABLE S ASSY
4	BR-749259	REEL TABLE TU ASSY
5	BT-709485	TRANS IF AM-M-CE
6	BT-709407	TRANS IFT FM-D
7	BT-707852	TRANS IFT FM-M
8	BT-749232	⚠ TRANS POWER AC-M2 (B,S)
9	BT-749225	⚠ TRANS POWER AC-M2 (C,A)
10	BT-749217	⚠ TRANS POWER AC-M2 (U)
11	BZ-749284	DAMPER ASSY
12	EC-741922	C S-FIX 8PF
13	ED-709441	D LED SG238W
14	ED-709518	D LED TLG206 GREEN
15	ED-709517	D LED TLR206 RED
16	ED-706596	D SILICON KB-167
17	ED-710386	D SILICON MA165
18	ED-707776	D SILICON S1WB-10
19	ED-703290	D SILICON S2VB10
20	ED-702195	D SILICON 1S1555V–TP3
21	ED-749214	D ZENER MA1120A (TA)
22	ED-749211	D ZENER MA1130M (TA)
23	EF-702200	⚠ FUSE 1S-T
24	EH-749216	FILTER CE
25	EH-710363	FILTER LC
26	EI-709399	IC AN7223
27	EI-213390	IC NJM4558D
28	EI-709447	IC TA7325P
29	EI-709247	IC TA7629P
30	EI-702184	IC μPC1188H
31	EI-701061	IC μPC1197C
32	EJ-709454	MIC J 3.5
33	EJ-709455	PHONE J 3.5ST
34	EO-710389	COIL ANT MW
35	EO-709425	COIL CHOKE AF 12MH
36	EO-702240	COIL CHOKE AF 4.70MH
37	EO-709482	COIL CHOKE 229
38	EO-709483	COIL CHOKE 229
39	EO-709409	COIL MPX
40	EO-709464	COIL OSC AF
41	EO-710388	COIL OSC MW
42	EO-709479	COIL RF FM
43	EO-709480	COIL RF FM
44	ER-710379	⚠ R FUSE 1/4W 100J
45	ER-704152	⚠ R FUSE 1/4W 220J
46	ER-710380	⚠ R FUSE 1/4W 4R7J
47	ER-704791	⚠ R FUSE 1/4W 470J
48	ES-749250	SW LEAF
49	ES-749289	SW LEAF
50	ES-749290	SW LEAF
51	ES-749291	SW LEAF
52	ES-709452	SW PUSH
53	ES-710399	⚠ SW PUSH
54	ES-749215	SW PUSH 11THROW
55	ES-709398	⚠ SW SLIDE
56	ES-709451	SW SLIDE
57	ES-709453	SW SLIDE
58	ET-336867	TR FET 3SK73 Y
59	ET-308867	TR 2SA1015 O,Y,GR
60	ET-703482	TR 2SA950-Y
61	ET-330225	TR 2SC1815 BL
62	ET-305221	TR 2SC1815 O,Y GR
63	ET-702676	TR 2SC1923-0
64	ET-702699	TR 2SC1923R
65	ET-306719	TR 2SC2236 O,Y
66	ET-702700	TR 2SC380TM O
67	ET-338565	TR 2SD1302 R,S
68	ET-709448	TR 2SJ103 GR
69	ET-709400	TR 2SK192A-Y
70	EV-706604	R S-FIX 102
71	EV-706603	R S-FIX 103
72	EV-749213	R S-FIX 204
73	EV-749212	R S-FIX 503
74	EV-709459	VR ROTARY 16B-200K D-T
75	EV-709461	VR ROTARY 16C-10K-D
76	EV-709460	VR ROTARY 16W-200K
77	HE-749286	HEAD ERASE
78	HR-749285	HEAD R/P
79	MB-749277	BELT
80	MB-749278	BELT
81	MB-749288	COUNTER BELT
82	MI-749276	FLYWHEEL
83	MI-749258	IDLER PLAY

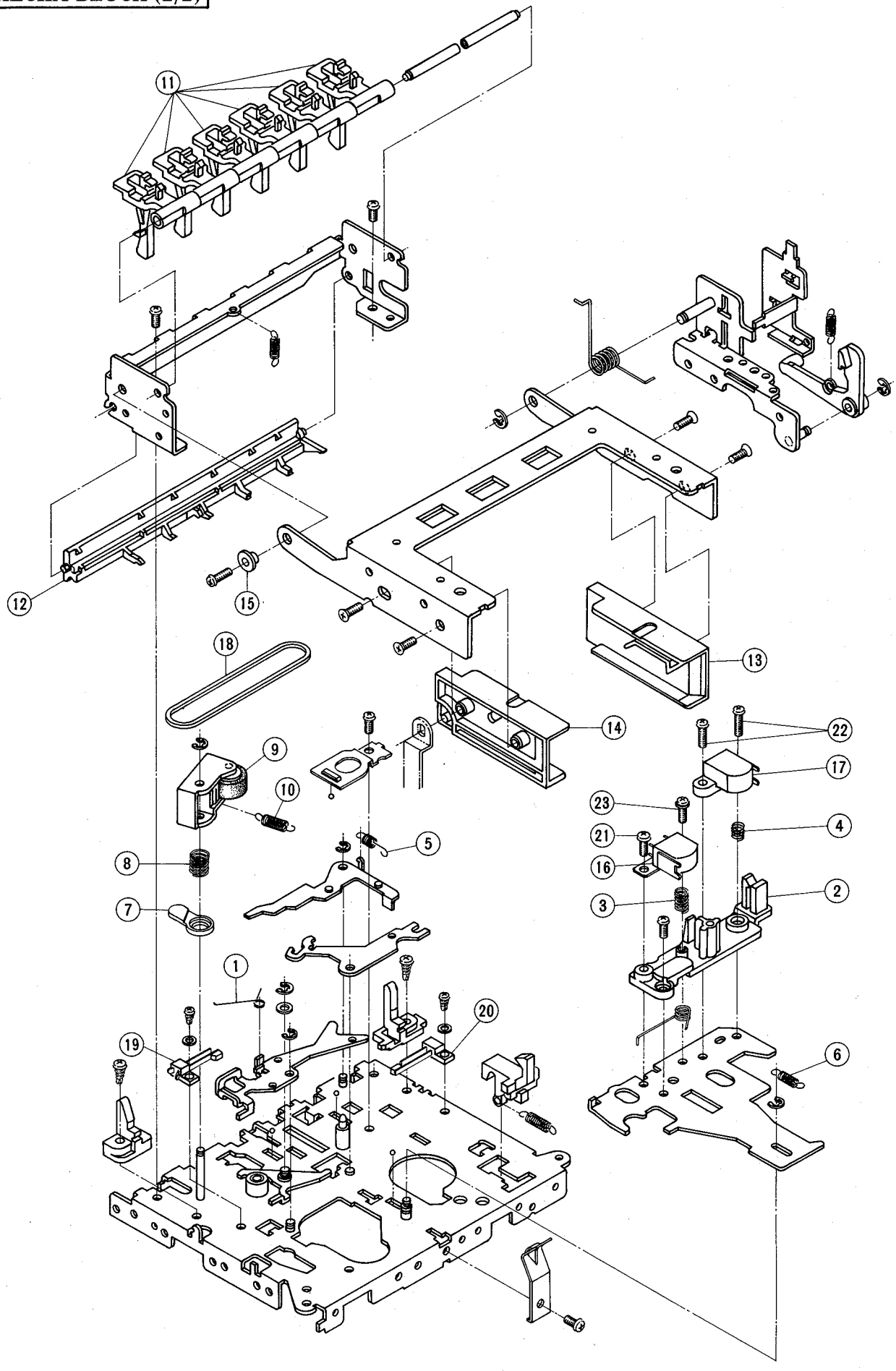
MECHA BLOCK (1/2)



1. MECHA BLOCK (1/2)

REF. NO.	PARTS NO.	DESCRIPTION
1-1	BZ-749224	MECHA BLOCK
1-2	MZ-749236	MECHA CHASSIS
1-3	ML-749237	SP LEVER (B)
1-4	ML-749238	SP LEVER (A)
1-5	ML-749239	ARM SHIFT (A)
1-6	ML-749240	ARM SHIFT (B)
1-7	MZ-749241	GEAR (A)
1-8	MZ-749242	GEAR (B)
1-9	MZ-749243	LOCK ARM (A)
1-10	MZ-749244	LOCK ARM (B)
1-11	TC-749245	BRAKE RUBBER
1-12	BL-749246	FF IDLER ARM ASSY
1-13	MZ-749247	GEAR FF
1-14	ZG-749248	SP FF GEAR
1-15	BZ-749249	REEL BASE ASSY
1-16	ES-749250	SW LEAF
1-17	MZ-749251	GEAR AUTO
1-18	MZ-749252	ARM SENSOR
1-19	MZ-749253	ARM AUTO
1-20	BZ-749254	AUTO CLUTCH ASSY
1-21	ZG-749255	SP TENSION
1-22	MZ-749256	BUSH
1-23	MZ-749257	ARM PLAY
1-24	MI-749258	IDLER PLAY
1-25	BR-749259	REEL TABLE TU ASSY
1-26	BR-749260	REEL TABLE S ASSY
1-27	ZG-749261	SP BACK TENSION
1-28	BL-749262	PULLEY ARM FR ASSY
1-29	MZ-749263	ARM REW
1-30	ZG-749264	SP PULLEY ARM FR
1-31	ZG-749265	SP ADJUST
1-32	MI-749276	FLYWHEEL
1-33	MB-749277	BELT
1-34	MB-749278	BELT
1-35	BZ-749284	DAMPER ASSY
1-36	BM-749287	MOTOR ASSY
1-37	MB-702313	CUSHION
1-38	MH-702315	COLLAR MOTOR
1-39	ES-749291	SW LEAF

MECHA BLOCK (2/2)



2. MECHA BLOCK (2/2)

REF. NO.	PARTS NO.	DESCRIPTION
2-1	ZG-749266	SP AUTO LOCK ARM
2-2	MZ-749267	HEAD BASE
2-3	ZG-749268	SP HEAD
2-4	ZG-749269	SP HEAD
2-5	ZG-749270	SP FR LOCK ARM
2-6	ZG-749271	SP BRAKE
2-7	HZ-749272	CAM PAUSE
2-8	ZG-749273	SP CAM PAUSE
2-9	BL-749274	PINCH ROLLER ARM ASSY
2-10	ZG-749275	SP PINCH ROLLER
2-11	ML-749279	LEVER BUTTON
2-12	MZ-749280	CAM LOCK (F)
2-13	MZ-749281	CASSETTE POKET (L)
2-14	MZ-749282	CASSETTE POKET (R)
2-15	MZ-749283	COLLAR CASE
2-16	HR-749285	HEAD R/P
2-17	HE-749286	HEAD ERASE
2-18	MB-749288	COUNTER BELT
2-19	ES-749289	SW LEAF
2-20	ES-749290	SW LEAF
2-21	ZS-536488	BID20x08STL CMT
2-22	ZS-749292	BID20x8.5STL CMT
2-23	ZS-749293	BID20x09STL CMT TW
2-24x	MC-710466	COUNTER TAPE
2-25x	BD-749294	LID DECORATION PART

3. MAIN P.C BOARD BLOCK

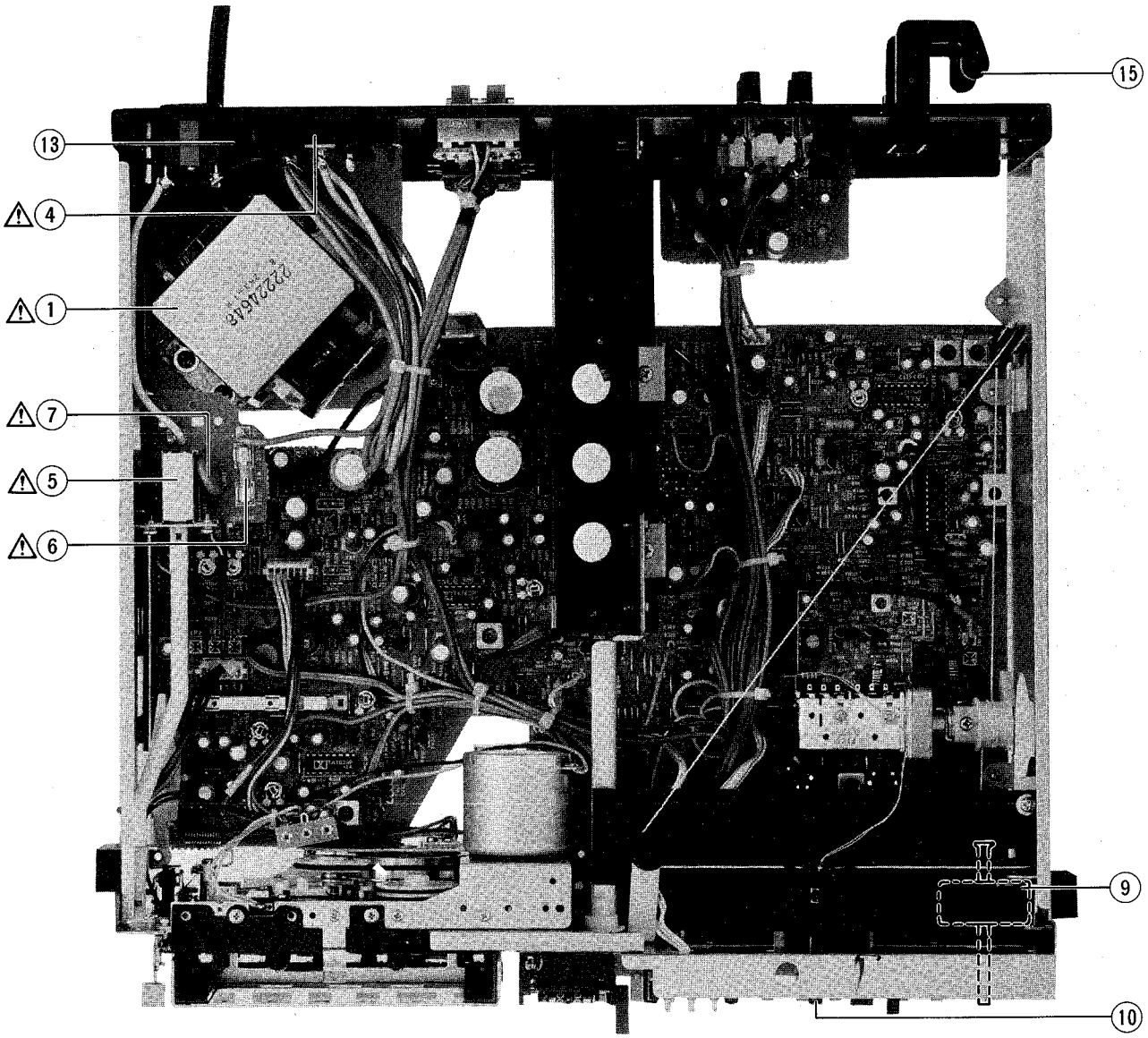
REF. NO.	PARTS NO.	DESCRIPTION
3-1U	BA-749210	PC MAIN BLK AC-M2 (U)
3-1C	BA-749226	PC MAIN BLK AC-M2 (C,A)
3-1S	BA-749235	PC MAIN BLK AC-M2 (S)
	MAIN P.C BOARD	
3-IC201	EI-709399	IC AN7223
3-IC202	EI-701061	IC μPC1197C
3-IC302	EI-213390	IC NJM4558D
3-IC303	EI-709447	IC TA7325P
3-IC305,306	EI-709247	IC TA7629P
3-IC501,502	EI-702184	IC μPC1188H
3-TR001	ET-306719	TR 2SC2236 O,Y
3-TR101	ET-336867	TR FET 3SK73 Y
3-TR102	ET-702699	TR 2SC1923R
3-TR103	ET-702676	TR 2SC1923-0
3-TR104	ET-709400	TR 2SK192A-Y
3-TR201	ET-702700	TR 2SC380TM O
3-TR202to206	ET-305221	TR 2SC1815 O,Y GR
3-TR207	ET-702700	TR 2SC380TM O
3-TR208	ET-330225	TR 2SC1815 BL
3-TR301to306	ET-330225	TR 2SC1815 BL
3-TR307to310	ET-338565	TR 2SD1302 R,S
3-TR311,312	ET-305221	TR 2SC1815 O,Y GR
3-TR313,314	ET-709448	TR 2SJ103 GR
3-TR315	ET-330225	TR 2SC1815 BL
3-TR601	ET-306719	TR 2SC2236 O,Y
3-TR602,603	ET-330225	TR 2SC1815 BL
3-TR604	ET-308867	TR 2SA1015 O,Y,GR
3-TR611	ET-306719	TR 2SC2236 O,Y
3-TR614	ET-703482	TR 2SA950-Y
3-TR615	ET-308867	TR 2SA1015 O,Y,GR
3-TR616,617	ET-305221	TR 2SC1815 O,Y GR
3-TR618	ET-308867	TR 2SA1015 O,Y,GR
3-TR619	ET-306719	TR 2SC2236 O,Y
3-TR620	ET-338565	TR 2SD1302 R,S
3-D001	ED-703290	D SILICON S2VB10
3-D002	ED-707776	D SILICON S1WB-10
3-D003	ED-702195	D SILICON 1S1555V-TP3
3-D004	ED-749211	D ZENER MA1130M (TA)
3-D101	ED-706596	D SILICON KB-167
3-D102	ED-710386	D SILICON MA165
3-D201to204	ED-702195	D SILICON 1S1555V-TP3
3-D209,210	ED-710386	D SILICON MA165
3-D301to310	ED-702195	D SILICON 1S1555V-TP3
3-D601	ED-749214	D ZENER MA1120M (TA)
3-D613to615	ED-702195	D SILICON 1S1555V-TP3
3-J2	EJ-709454	MIC J 3.5
3-J3	EJ-709455	PHONE J 3.5ST
3-S1	ES-749215	SW PUSH 11THROW
3-S3	ES-709451	SW SLIDE
3-SV201	EV-706603	R S-FIX 103
3-SV202	EV-706604	R S-FIX 102
3-SV301,302	EV-749212	R S-FIX 503
3-SV303,304	EV-706603	R S-FIX 103
3-SV601,602	EV-749213	R S-FIX 204
3-L101	EO-709479	COIL RF FM
3-L102	EO-709480	COIL RF FM
3-L103	EO-709479	COIL RF FM
3-L104,105	EO-709480	COIL RF FM
3-L106	EO-709483	COIL CHOKE 229
3-L107	EO-709482	COIL CHOKE 229
3-L108	EO-710389	COIL ANT MW
3-L109	EO-710388	COIL OSC MW
3-L110	EO-709482	COIL CHOKE 229
3-L201	EO-709482	COIL CHOKE 229
3-L301,302	EO-702240	COIL CHOKE AF 4.70MH
3-L601,602	EO-709425	COIL CHOKE AF 12MH
3-L603	EO-709464	COIL OSC AF
3-IT201	BT-707852	TRANS IFT FM-M
3-IT202	BT-709485	TRANS IF AM-M-CE
3-IT203	BT-709407	TRANS IFT FM-D
3-CF201,202	EH-749216	FILTER CE
3-MP201,202	EO-709409	COIL MPX
3-TC101to103	EC-741922	C S-FIX 8PF

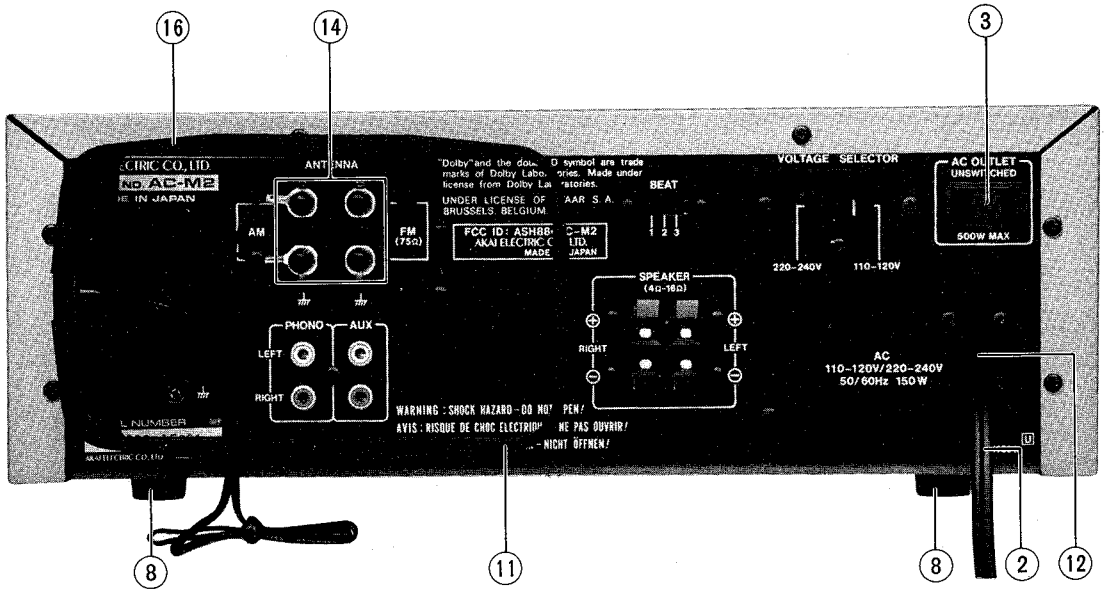
REF. NO.	PARTS NO.	DESCRIPTION
3-LC301,302	EH-710363	FILTER LC
3-R001	ER-702368	⚠ R FUSE 1/4W 2R2J
3-R004	ER-337794	R MF H S15 FS 1W 821J
3-R210	ER-331562	R OMF H SNP FS 1W 471J
3-R226	ER-330978	R OMF H FS 1W 102J
3-R228	ER-331562	R OMF H SNP FS 1W 471J
3-R317,318	ER-331187	R OMF H FS 1W 272J
3-R337	ER-704791	⚠ R FUSE 1/4W 470J
3-R351,352	ER-331187	R OMF H FS 1W 272J
3-R375	ER-331562	R OMF H SNP FS 1W 471J
3-R410	ER-704791	⚠ R FUSE 1/4W 470J
3-R513,514	ER-658124	R OMF H FS 1W 100J
3-R515,516	ER-304175	R OMF H FS 2W 151J
3-R601	ER-710380	⚠ R FUSE 1/4W 4R7J
3-R602	ER-301697	R OMF H FS 1W 561J
3-R608	ER-710379	R FUSE 1/4W 100J
3-R611	ER-710380	⚠ R FUSE 1/4W 4R7J
3-R616	ER-704152	⚠ R FUSE 1/4W 220J
3-R617	ER-701107	R OMF 1W 151J
3-R618	ER-308503	R OMF H FS 1W 181J
3-R629	ER-710379	⚠ R FUSE 1/4W 100J
3-R634	ER-704791	⚠ R FUSE 1/4W 470J
3-R646	ER-710379	⚠ R FUSE 1/4W 100J
3-C004,005	EC-710377	C EC V 472M 30.0DC
3-C009	EC-710378	C EC V 222M 25.0DC
3-2	EC-709477	VC AIR
	PHONO P.C BOARD	
3-IC301	EI-213390	IC NJM4558D
3-J1	EJ-709456	PIN J US4P
	VR P.C BOARD	
3-VR301	EV-709459	VR ROTARY 16B-200K D-T
3-VR302	EV-709460	VR ROTARY 16W-200K
3-VR303,304	EV-709461	VR ROTARY 16C-10K-D
3-S2	ES-709452	SW PUSH
	SP P.C BOARD	
3-J4	EJ-709458	TERMINAL PUSH 4P
	BEAT P.C BOARD	
3-S4	ES-709453	SW SLIDE
	LED P.C BOARD	
3-D206	ED-709518	D LED TLG206 GREEN
3-D207	ED-709517	D LED TLR206 RED
3-D618	ED-709517	D LED TLR206 RED

4. ASSEMBLY BLOCK

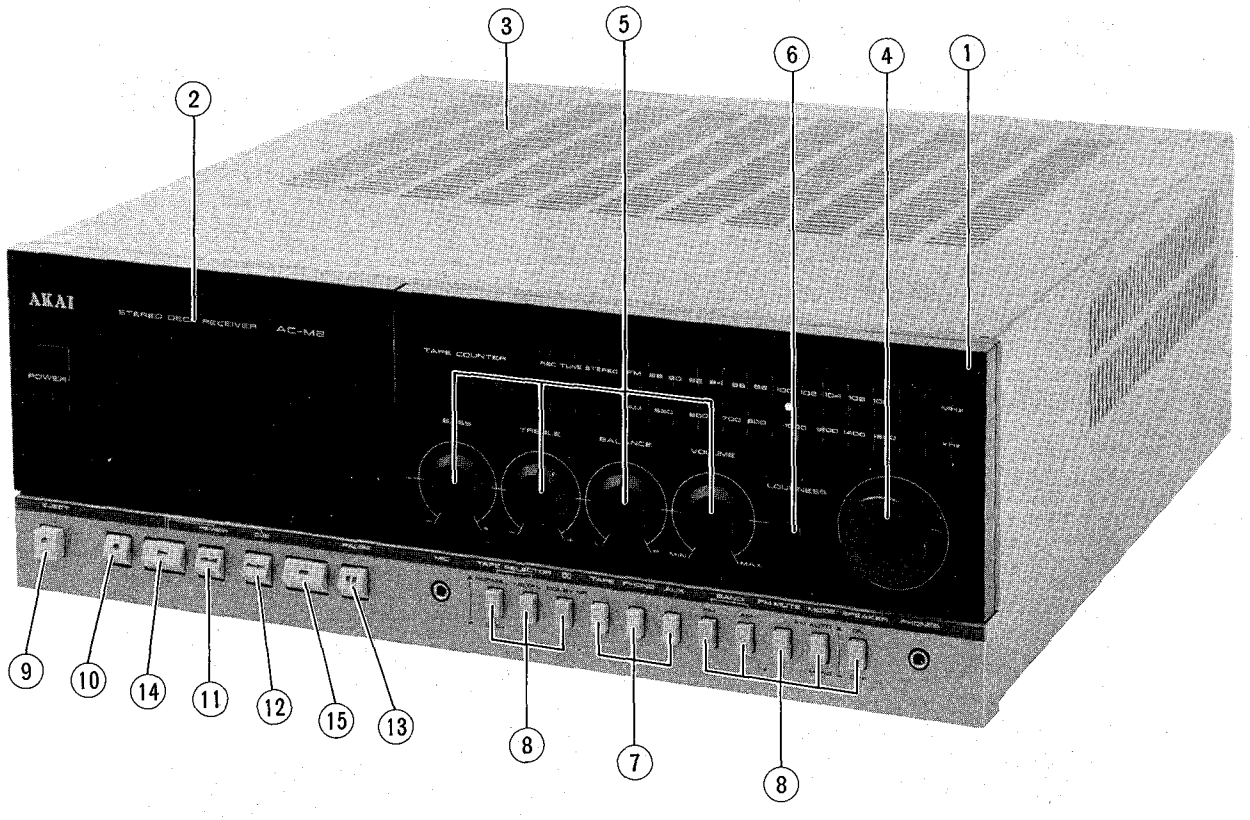
REF. NO.	PARTS NO.	DESCRIPTION
4-1U	BT-749217	⚠ TRANS POWER AC-M2 (U)
4-1C	BT-749225	⚠ TRANS POWER AC-M2 (C,A)
4-1S	BT-749232	⚠ TRANS POWER AC-M2 (B,S)
4-2U	EW-343363	⚠ AC CORD 2 CORES KP-8, SPT-2 UC (U,C,A)
4-2S	EW-201515	⚠ AC CORD 2 CORES KP-560, LTSA-2 F S (S)
4-3	EJ-749218	⚠ SOCKET OUTLET 2P (U,C,A)
4-4	ES-709398	⚠ SW SLIDE (S11) (U)
4-5	ES-710399	⚠ SW PUSH (S10)
4-6	EF-702200	⚠ FUSE 1S-T (F001) (EXCEPT C,A)
4-7	EC-338411	⚠ C CE V FZ 103P 400AC (C001)
4-8	SA-710419	FOOT
4-9	TA-710426	SHAFT TUNING
4-10	ED-709441	D LED SG238W (D208)
4-11U	SP-749222	PANEL REAR AC-M2 (U)
4-11C	SP-749227	PANEL REAR AC-M2 (C,A)
4-11S	SP-749234	PANEL REAR AC-M2 (S)
4-12	SZ-710448	HOLDER CODE
4-13	SZ-710449	HOLDER CODE
4-14	EJ-710451	TERMINAL SCREW 4P
4-15	SZ-710453	HOLDER ANT
4-16	EE-709445	ANT LOOP

ASSEMBLY BLOCK





FINAL ASSEMBLY BLOCK



5. FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
5-1	BD-749220	PANEL FRONT BLK AC-M2
5-2	BD-749221	LID PANEL ASSY AC-M2
5-3	SP-749219	COVER UPPER
5-4	SK-710410	KNOB TUNING
5-5	SK-710411	KNOB VOLUME
5-6	SK-710412	KNOB PUSH LUD
5-7	SK-710413	KNOB PUSH SW
5-8	SK-710415	KNOB PUSH SW
5-9	SK-710473	KNOB EJECT
5-10	SK-710474	KNOB REC
5-11	SK-710475	KNOB REW
5-12	SK-710476	KNOB FF
5-13	SK-710477	KNOB PAUSE
5-14	SK-710478	KNOB PLAY
5-15	SK-710479	KNOB STOP

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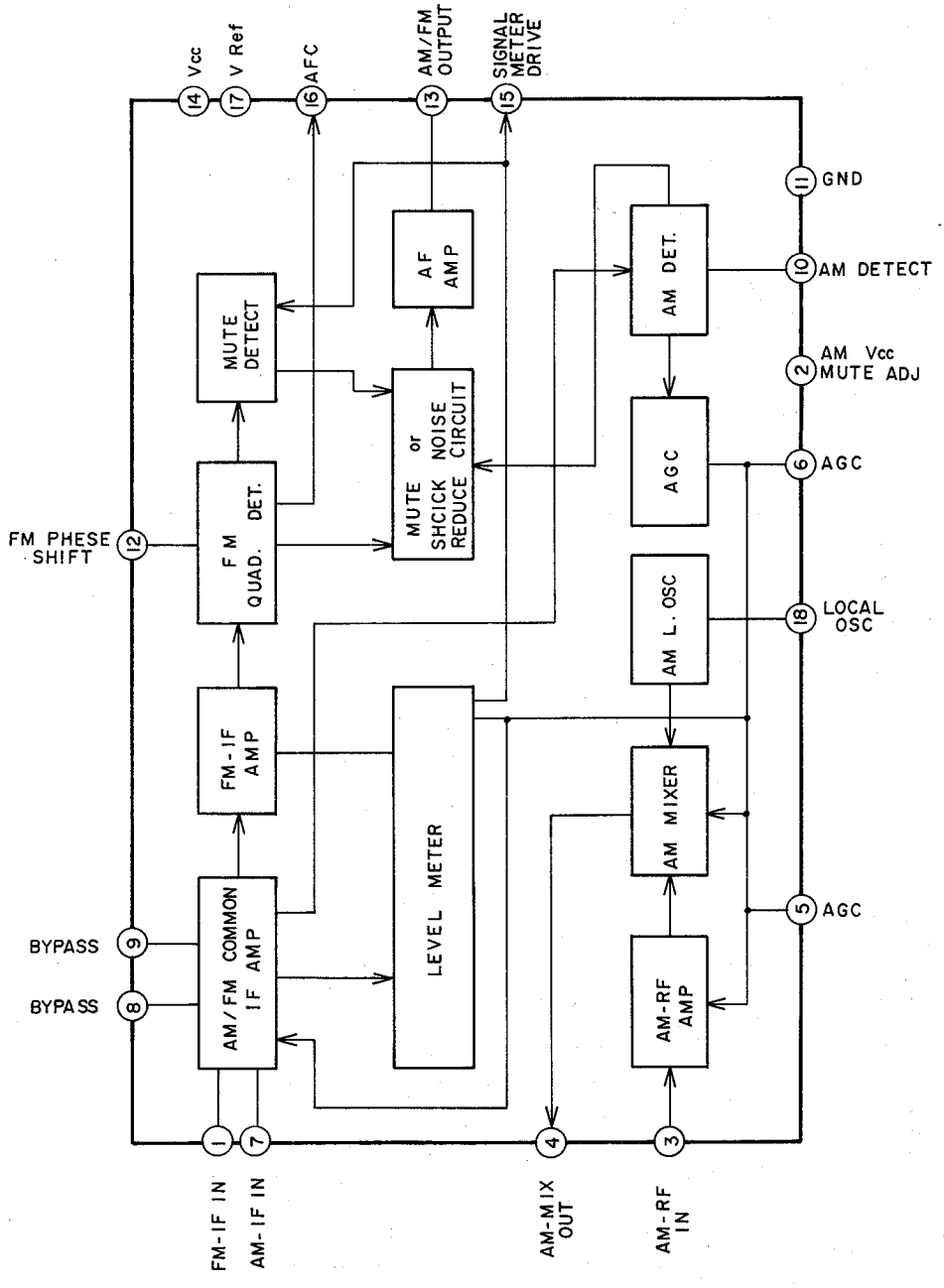
PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.
BA-749210	3-1U	EJ-749218	4-3	ET-330225	3-TR315	SZ-710449	4-13
BA-749226	3-1C	EO-702240	3-L301	ET-336867	3-TR101	SZ-710453	4-15
BA-749235	3-1S	EO-702240	3-L302	ET-338565	3-TR309	TA-710426	4-9
BD-749220	5-1	EO-709409	3-MP202	ET-338565	3-TR620	TC-742945	1-11
BD-749221	5-2	EO-709409	3-MP201	ET-338565	3-TR308	ZG-749248	1-14
BD-749294	2-25x	EO-709425	3-L602	ET-338565	3-TR310	ZG-749255	1-21
BL-749246	1-12	EO-709425	3-L601	ET-338565	3-TR307	ZG-749261	1-27
BL-749262	1-28	EO-709464	3-L603	ET-702676	3-TR103	ZG-749264	1-30
BL-749274	2-9	EO-709479	3-L103	ET-702699	3-TR102	ZG-749265	1-31
BM-749287	1-36	EO-709479	3-L101	ET-702700	3-TR207	ZG-749266	2-1
BR-749259	1-25	EO-709480	3-L104	ET-702700	3-TR201	ZG-749268	2-3
BR-749260	1-26	EO-709480	3-L102	ET-703482	3-TR614	ZG-749269	2-4
BT-707852	3-IT201	EO-709480	3-L105	ET-709400	3-TR104	ZG-749270	2-5
BT-709407	3-IT203	EO-709482	3-L107	ET-709448	3-TR313	ZG-749271	2-6
BT-709485	3-IT202	EO-709482	3-L201	ET-709448	3-TR314	ZG-749273	2-8
BT-749217	4-1U	EO-709482	3-L110	EV-706603	3-SV201	ZG-749275	2-10
BT-749225	4-1C	EO-709483	3-L106	EV-706603	3-SV304	ZS-536488	2-21
BT-749232	4-1S	EO-710388	3-L109	EV-706603	3-SV303	ZS-749292	2-22
BZ-749224	1-1	EO-710389	3-L108	EV-706604	3-SV202	ZS-749293	2-23
BZ-749249	1-15	ER-301697	3-R602	EV-709459	3-VR301		
BZ-749254	1-20	ER-304175	3-R516	EV-709460	3-VR302		
BZ-749284	1-35	ER-304175	3-R515	EV-709461	3-VR304		
EC-338411	4-7	ER-308503	3-R618	EV-709461	3-VR303		
EC-709477	3-2	ER-330978	3-R226	EV-749212	3-SV301		
EC-710377	3-C004	ER-331187	3-R317	EV-749212	3-SV302		
EC-710377	3-C005	ER-331187	3-R351	EV-749213	3-SV602		
EC-710378	3-C009	ER-331187	3-R318	EV-749213	3-SV601		
EC-741922	3-TC102	ER-331187	3-R352	EW-201515	4-2S		
EC-741922	3-TC101	ER-331562	3-R228	EW-343363	4-2U		
EC-741922	3-TC103	ER-331562	3-R210	HE-749286	2-17		
ED-702195	3-D308	ER-331562	3-R375	HR-749285	2-16		
ED-702195	3-D309	ER-337794	3-R004	HZ-749272	2-7		
ED-702195	3-D307	ER-658124	3-R514	MB-702313	1-37		
ED-702195	3-D303	ER-658124	3-R513	MB-749277	1-33		
ED-702195	3-D306	ER-701107	3-R617	MB-749278	1-34		
ED-702195	3-D305	ER-702368	3-R001	MB-749288	2-18		
ED-702195	3-D304	ER-704152	3-R616	MC-710466	2-24x		
ED-702195	3-D301	ER-704791	3-R634	MH-702315	1-38		
ED-702195	3-D003	ER-704791	3-R337	MI-749258	1-24		
ED-702195	3-D302	ER-704791	3-R410	MI-749276	1-32		
ED-702195	3-D614	ER-710379	3-R629	ML-749237	1-3		
ED-702195	3-D310	ER-710379	3-R646	ML-749238	1-4		
ED-702195	3-D615	ER-710379	3-R608	ML-749239	1-5		
ED-702195	3-D613	ER-710380	3-R601	ML-749240	1-6		
ED-702195	3-D202	ER-710380	3-R611	ML-749279	2-11		
ED-702195	3-D201	ES-709398	4-4	MZ-749236	1-2		
ED-702195	3-D204	ES-709451	3-S3	MZ-749241	1-7		
ED-702195	3-D203	ES-709452	3-S2	MZ-749242	1-8		
ED-703290	3-D001	ES-709453	3-S4	MZ-749243	1-9		
ED-706596	3-D101	ES-710399	4-5	MZ-749244	1-10		
ED-707776	3-D002	ES-749215	3-S1	MZ-749247	1-13		
ED-709441	4-10	ES-749250	1-16	MZ-749251	1-17		
ED-709517	3-D618	ES-749289	2-19	MZ-749252	1-18		
ED-709517	3-D207	ES-749290	2-20	MZ-749253	1-19		
ED-709518	3-D206	ES-749291	1-39	MZ-749256	1-22		
ED-710386	3-D209	ET-305221	3-TR617	MZ-749257	1-23		
ED-710386	3-D210	ET-305221	3-TR311	MZ-749263	1-29		
ED-710386	3-D102	ET-305221	3-TR204	MZ-749267	2-2		
ED-749211	3-D004	ET-305221	3-TR203	MZ-749280	2-12		
ED-749214	3-D601	ET-305221	3-TR616	MZ-749281	2-13		
EE-709445	4-16	ET-305221	3-TR202	MZ-749282	2-14		
EF-702200	4-6	ET-305221	3-TR312	MZ-749283	2-15		
EH-710363	3-LC302	ET-305221	3-TR206	SA-710419	4-8		
EH-710363	3-LC301	ET-305221	3-TR205	SK-710410	5-4		
EH-749216	3-CF202	ET-306719	3-TR601	SK-710411	5-5		
EH-749216	3-CF201	ET-306719	3-TR611	SK-710412	5-6		
EI-213390	3-IC301	ET-306719	3-TR001	SK-710413	5-7		
EI-213390	3-IC302	ET-306719	3-TR619	SK-710415	5-8		
EI-701061	3-IC202	ET-308867	3-TR604	SK-710473	5-9		
EI-702184	3-IC501	ET-308867	3-TR615	SK-710474	5-10		
EI-702184	3-IC502	ET-308867	3-TR618	SK-710475	5-11		
EI-709247	3-IC305	ET-330225	3-TR302	SK-710476	5-12		
EI-709247	3-IC306	ET-330225	3-TR306	SK-710477	5-13		
EI-709399	3-IC201	ET-330225	3-TR305	SK-710478	5-14		
EI 709447	3-IC303	ET-330225	3-TR304	SK-710479	5-15		
EJ-709454	3-J2	ET-330225	3-TR301	SP-749219	5-3		
EJ-709455	3-J3	ET-330225	3-TR208	SP-749222	4-11U		
EJ-709456	3-J1	ET-330225	3-TR303	SP-749227	4-11C		
EJ-709458	3-J4	ET-330225	3-TR603	SP-749234	4-11S		
EJ-710451	4-14	ET-330225	3-TR602	SZ-710448	4-12		

SECTION 3

SCHEMATIC DIAGRAM

1. SCHEMATIC DIAGRAM OF ICs 30
2. AC-M2 (DECK RECEIVER) NO. 830310A SCHEMATIC DIAGRAM ... 33

AN7223



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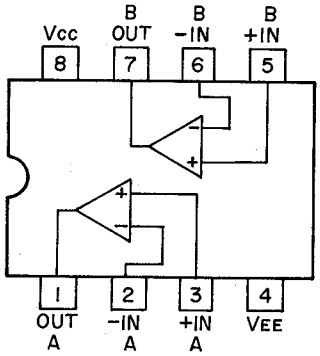

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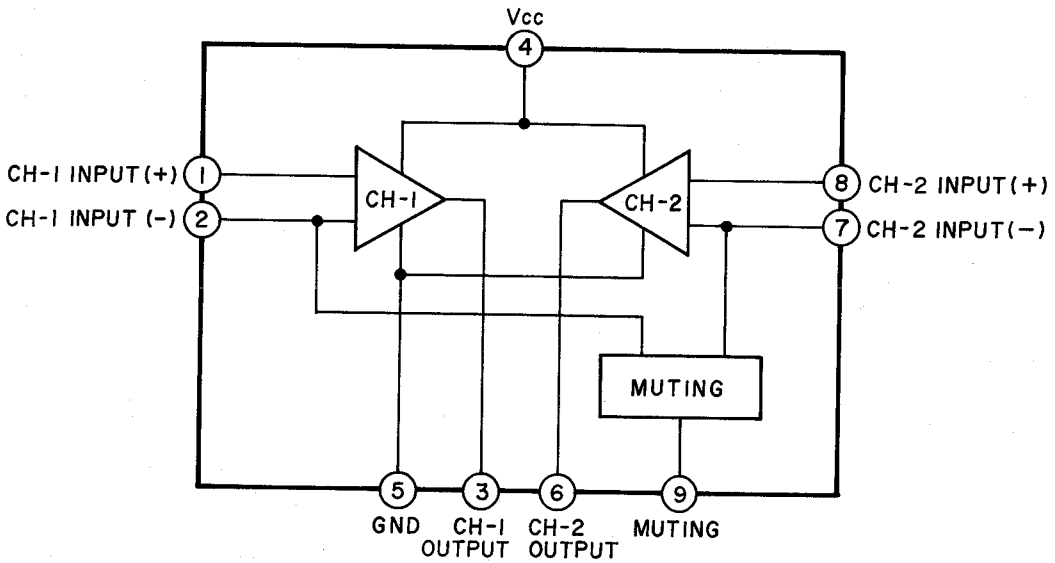

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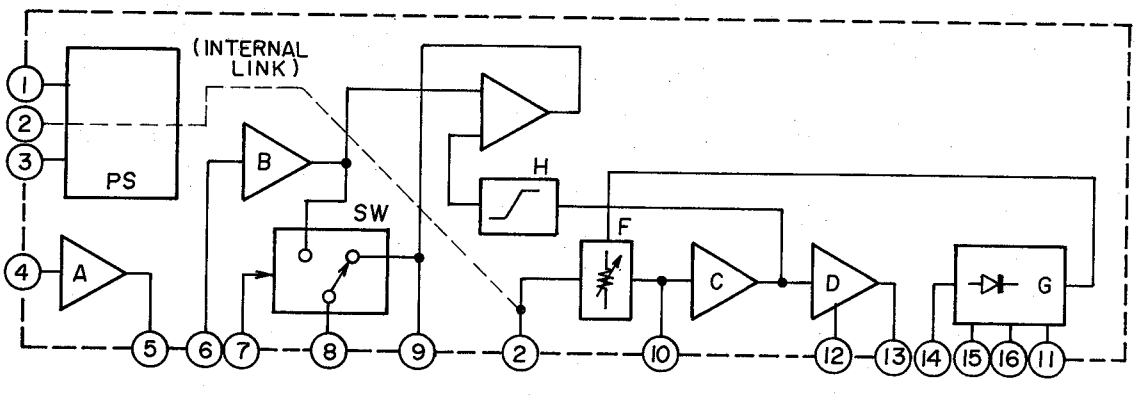

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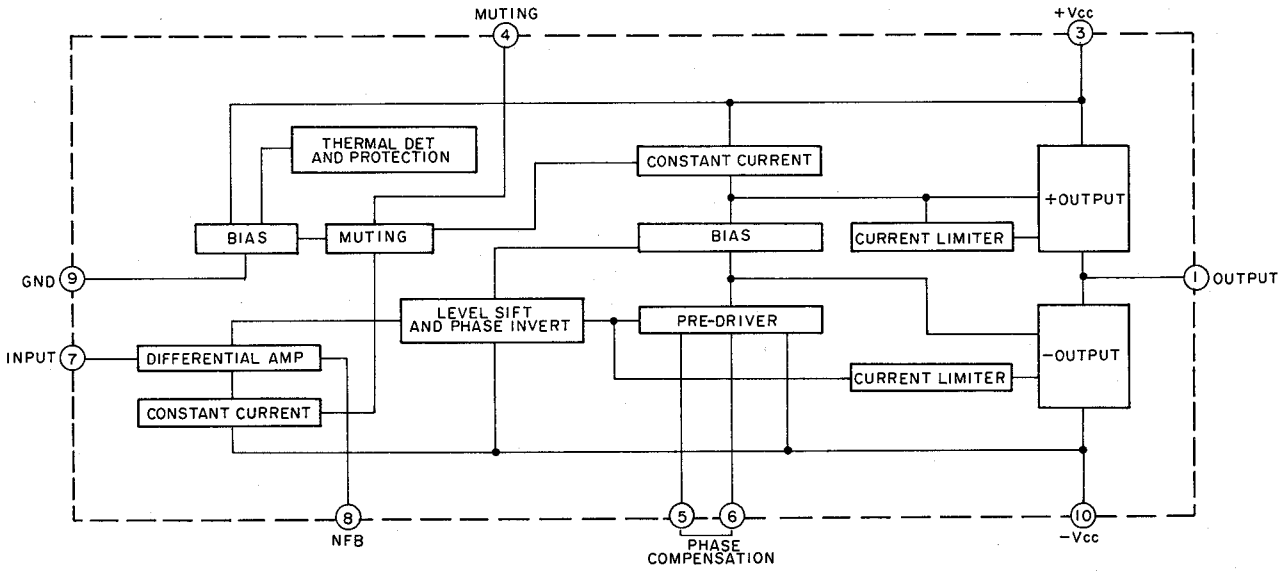

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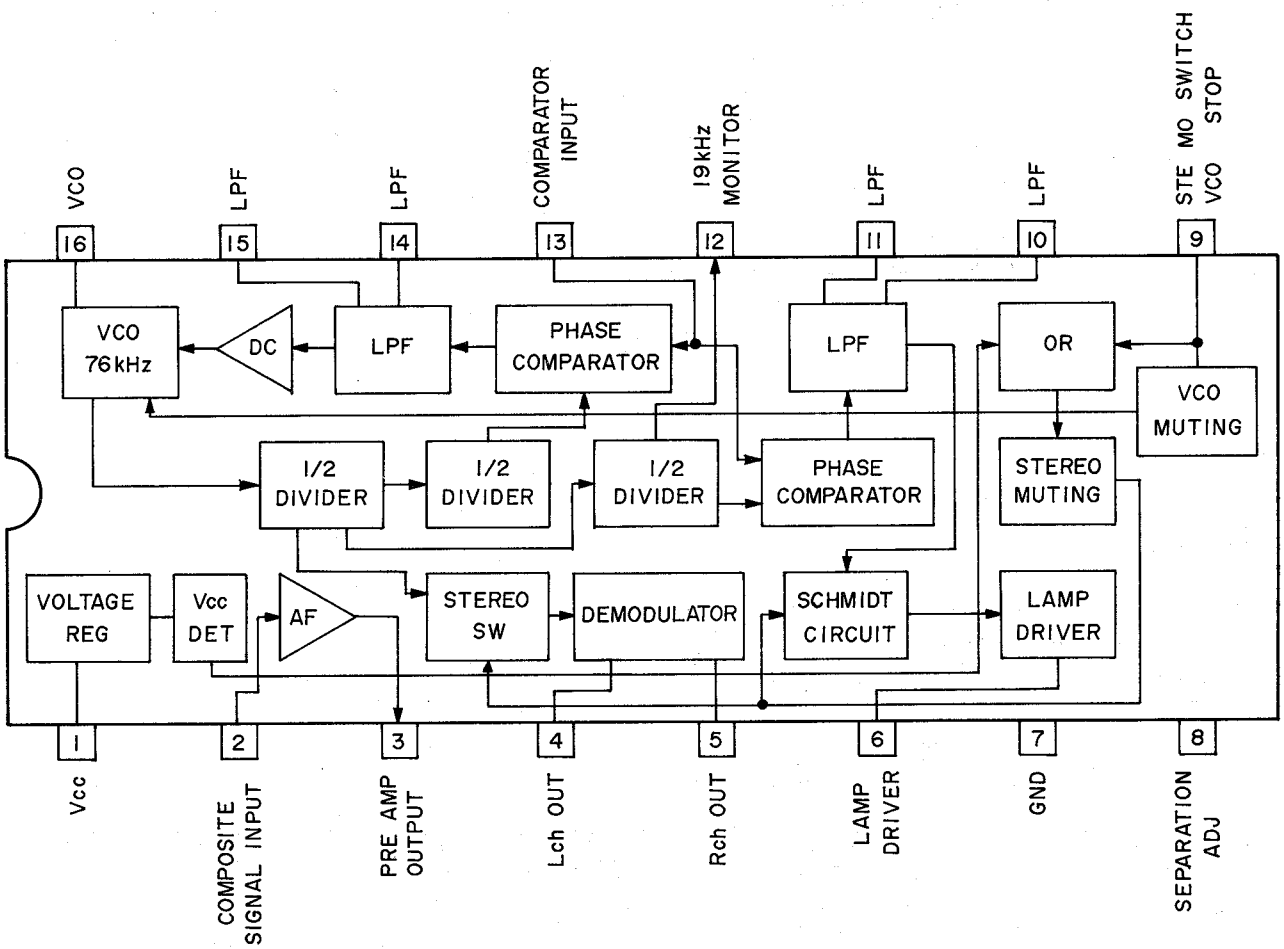

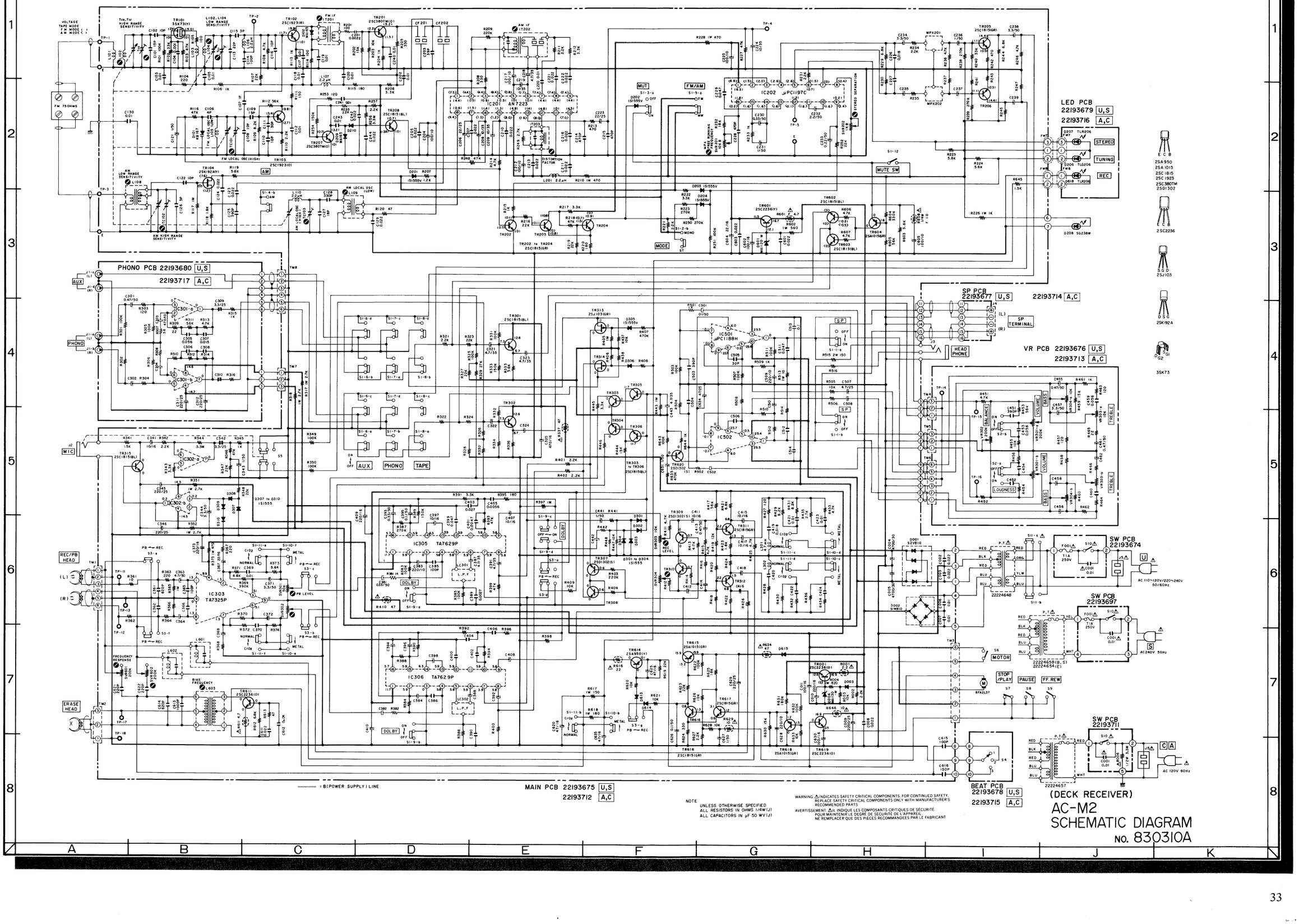

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV(J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT